2023 City of Monash Economic Profile

City of Monash

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Executive Summary

This economic profile provides a comprehensive overview of the City of Monash's (Monash's) socioeconomic profile, including its population and demographics, key industry sectors, and workforce.

Monash is a Local Government Area located in the south eastern suburbs of Melbourne, Victoria. Monash has a strong and diverse economy, with a range of industries that make it the second largest economy in Melbourne, and the 14th largest in Australia.

Rather than simply a residential area with a population-driven economy, Monash is a nationally significant economic generator, creating $12 billion of exports in 2021/22. A major hub for education and research with several leading universities and research institutions based in the area, Monash is also home to a variety of businesses, from small-scale start-ups to large multinational corporations, and has strong innovation and entrepreneurship ecosystems.

Some key economic indicators for Monash include:

- **Highly educated** - 41% of Monash residents have a Bachelor degree or higher, compared to 33% in Greater Melbourne.

- **Highly diverse** - 52% of Monash residents do not speak English as their first language, compared with 34.1% in Greater Melbourne.

- **"A tale of two cities"** - While Monash has high levels of advantage in aggregate, incomes vary across the City with clear differences between the northern residential sections and other more industrial areas, resulting in a "tale of two cities".

- **Women in senior roles** – Monash has a higher rate of women in professional roles (34%) than women in Greater Melbourne (30%), and men in both Monash (30%) and Greater Melbourne (23%).

Monash is home to the Monash National Employment and Innovation Cluster (MNEIC) which hosts over 83,000 jobs, generates billions of dollars of economic activity and attracts investment and global businesses. MNEIC provides world-class research infrastructure, including laboratories, advanced manufacturing hubs, and facilities of international significance such as the Australian Synchrotron. Anchored by the presence of Monash University and other education facilities, MNEIC provides significant opportunities for Melbourne residents and international students as well as supporting start-ups and spin-out businesses.

The forthcoming Suburban Rail Loop will have staggering implications for Monash. Three major precincts will be created or expanded, with a fourth just outside Monash's northern boundary. This will result in a forecast 188,000 new jobs by 2056, and a forecast increase of 95,000 residential growth by 2056. By 2056, it is likely the SRL will have transformed Monash into a substantially different place than it is today.

OUR ECONOMY

CITY OF MONASH

Competitive Strengths

Education
Monash University - 45,600 students and 14,000 staff

Health & Medical
Monash Children's hospital, Monash medical centre, Victorian Heart Hospital

Research
CSIRO, Melbourne Centre for Nanofabrication, Synchrotron

Eastern Innovation Business Centre
24 patents filed 2022/23

Industry & Business
26,691 GST registered businesses, including major multinationals

Jobs & Workforce

127,800 Jobs

$49,600
Median employee annual income

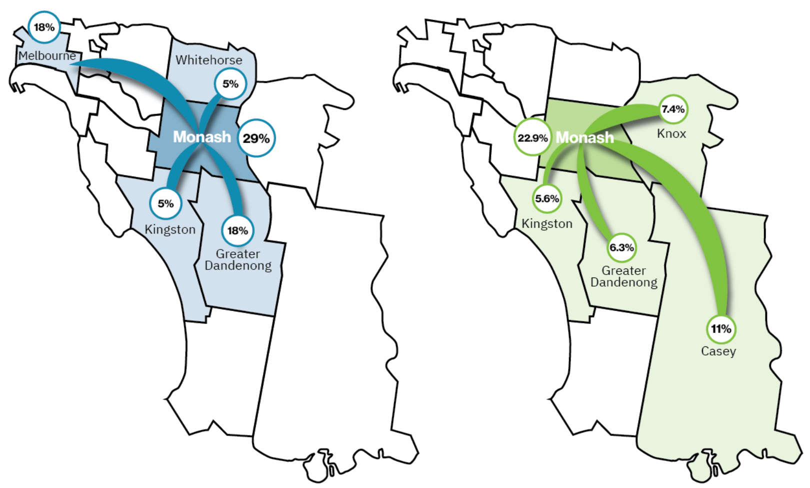
Business Sizes

21,828	1,916	591	27
Micro (up to 4 employees)	**Small** (5-19 employees)	**Medium** (20-199 employees)	**Large** (over 200 employees)

Journey to Work

People leaving Monash to go to work

People travelling to Monash to go to work



Propulsive Sectors

- Healthcare
- Education
- Manufacturing
- Professional
- Scientific & Technical Services

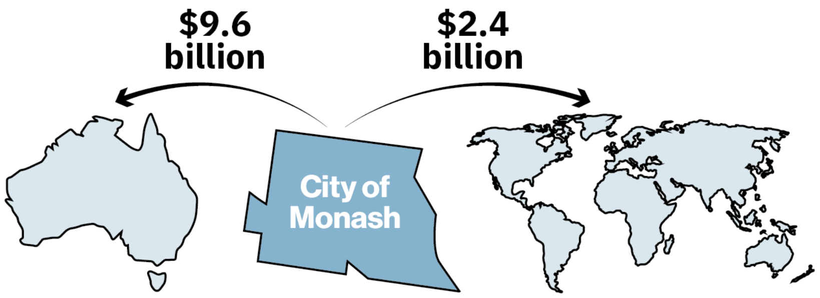
Exports

Top 3 Domestic Export Industries

Manufacturing - $2.5 billion
Education and training - $ 2.0 billion
Wholesale trade - $ 1.5 billion

Top 3 International Export Industries

Manufacturing - $1.2 billion
Wholesale trade - $0.7 billion
Education and training - $0.2 billion



$18 Billion
GRP

$140,830
GRP per worker

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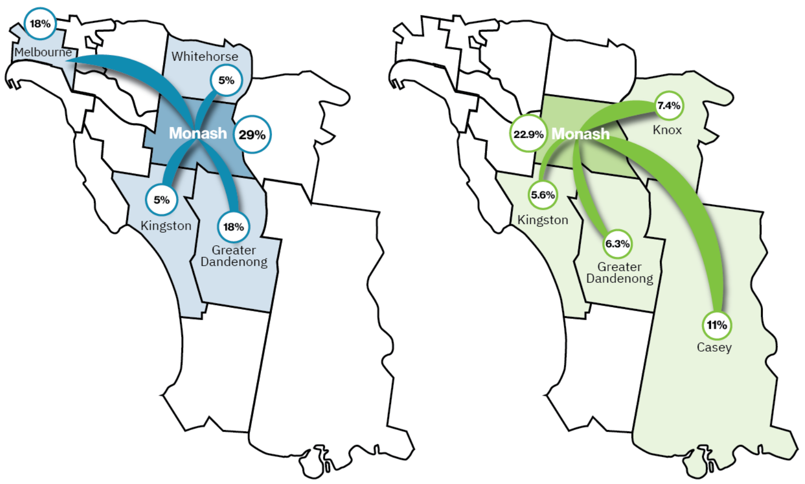

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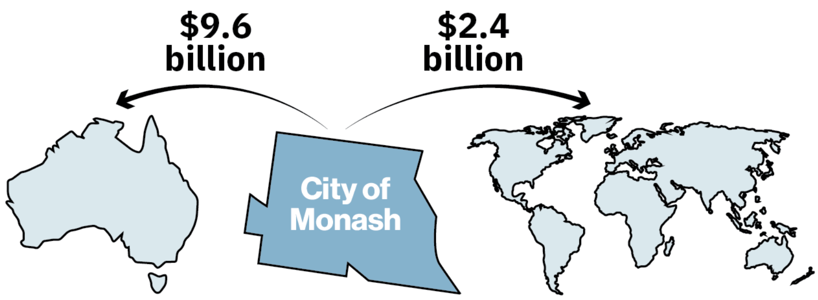


$18 Billion
GRP

$140,830
GRP per worker

City of Monash - Key socioeconomic data points

<u>Economy</u>

Jobs and businesses

127,800 jobs in 2022.

24,362 registered businesses in 2022.

Gross Regional Product

GRP of $18 billion in 2021.

Per capita GRP in 2021 was $85,000 per person, compared to $79,600 for Greater Melbourne.

GRP per local job in 2021 was $140,830.

Industry

Healthcare (16.9%) and Education (13.5%) have the highest total share of employment in 2021.

Education (13%), Wholesale Trade (12.2%), and Healthcare (12.1%) produce the highest share of value add in 2021.

Exports

$12 billion in international and domestic exports in 2021/22.

Largest export industries in 2021/22 were Manufacturing ($3.7 billion), Wholesale Trade ($2.2 billion) and Education and Training ($2.2 billion).

Tourism and students

Clayton campus was coordinating campus for 49,366 enrolled students in 2022.

Approximately 9,000 tourists visited in 2021/22, representing 2.5% of Greater Melbourne's total visitation.

Total tourism employment of 7,500 in 2020/21.

Total value of building approvals in 2021-22 was $875.6 million.

Socioeconomics

Demographics

Population was approximately 194,700 in 2022.

Population growth rate from 2021 to 2022 was 0.9%, compared to 1.1% for Greater Melbourne.

Highest represented age profiles are 5.1% for males aged 20-24, and 4.6% for females aged 20-24.

86.1% increase in men aged 85+, and 44% for women aged 85+, between 2011 and 2021.

10% share of population in 20-24 age bracket, substantially higher than Greater Melbourne's 7%.

51% ratio of people in the working age cohort comparted to 54% for Greater Melbourne.

59% of household structures are couples (with or without children).

Net migration for City of Monash was + 21,576 between 2016-2021.

Diversity

Most common ancestry groups are Chinese (24.8%), followed by English (16.8%) and Australian (14.8%).

Substantially higher rates of people with Chinese ancestry (24.8%) than Greater Melbourne (8.3%).

52% rate of people who do not have English as their first language, compared to 34.1% for Greater Melbourne.

Income

Median weekly household income of $1,901 per week, identical to Greater Melbourne's weekly household income.

The majority of residents are in the lowest (24.5%) and highest (29.6%) Victorian income quartiles.

The rate of households who fully own their property is higher (35%) than Greater Melbourne (29%).

Education and qualifications

41% of residents have a Bachelor degree or higher, compared to 33% in Greater Melbourne.

Monash resident workers' primary fields of qualification include Management and Commerce (21.6%), Engineering and Related Technologies (11.1%) and Health (8.3%).

Management and Commerce qualifications are more prevalent for Monash females (24%) and males (20%), compared to 19%, and 16% respectively for Greater Melbourne.

Resident workforce

68% of males work full time, compared to 48% for females.

34% of female resident workers work as Professionals compared to 30% for Greater Melbourne.

77% of people who work in Monash do not reside in Monash (Employment Self-Sufficiency).

29% of working Monash residents are employed within Monash (Employment Self-Containment).

Monash Precinct (including the National Employment and Innovation Cluster (MNEIC))

Monash Precinct hosted 83,483 jobs in 2021.

GRP of $11.8 billion.

GRP per worker of $141,870.

MNEIC has strong employment specialisations in Wholesale Trade, Manufacturing, Education and Training, and Health Care and Social Assistance.

MNEIC's strongest industries by growth and specialisation are Health, Education, Construction.

Suburban Rail Loop

188,000 new jobs forecast by 2056.

95,000 new residents forecast by 2056.

1. Introduction

1.1. Purpose of this document

This economic profile provides a comprehensive overview of the City of Monash's socioeconomic profile, including its population and demographics, key industry sectors, and workforce. It also identifies strengths, weaknesses, relevant trends and opportunities for growth.

The profile creates an evidence base to be utilised as a planning and decision-making tool to help inform policies and strategies that support economic development, and to help attract businesses and investors to the area by showcasing the local economy's strengths and advantages.

1.2. Study area – the City of Monash

The City of Monash (Monash) is a local government area in Melbourne, Victoria, approximately 20km south east of the CBD. A map of Monash and its surrounding Local Government Authorities (LGA) is at Figure 1, and a map of Monash and its composite suburbs is at Figure 2.

Figure 1 - Map of Monash and surrounding LGAs

Source: Vic Councils, 2023. [link]

Figure 2 - Map of the Monash and its composite suburbs

Source: Hatch, 2023.

This document benchmarks Monash's indicators against the Greater Melbourne area, as per the ABS's definition of Greater Capital City Statistical Areas. For context, Greater Melbourne has a population of approximately 4.9 million people.[1]

[1] ABS Quickstats for Greater Melbourne, based on 2021 Census data.

2. Monash's Context

2.1. Megatrends, opportunities and threats

The following global megatrends are likely to impact Monash and its development:

Artificial Intelligence (AI)

• *What it could mean for Monash*: Recent leaps in AI technology such as ChatGPT could significantly enhance productivity of key industries in Monash and allow the development of new specialisations, particularly health care and life sciences.

Climate change and decarbonisation

• *What it could mean for Monash*: Industries may be attracted to Victoria's enviable access to wave, wind and solar generation, and planning for system redundancies to bring flexibility and resilience.

Global inflation

• *What it could mean for Monash*: Increased cost pressures could impact timings for construction of critical infrastructure in the short to medium term, including the SRL.

Reshoring and sovereign manufacturing

• *What it could mean for Monash*: Political direction to manufacture strategically critical products within Australia could lead to new industry opportunities for Monash's manufacturers.

Advanced manufacturing and automation

• *What it could mean for Monash*: Potential to build on existing manufacturing and fabrication techniques that reduce costs and make Victoria's industries globally competitive.

The race for talent

• *What it could mean for Monash*: Building a compelling brand that attracts and retains world-leading talent to live, work and invest in Monash, as well as helping local talent to grow and support Monash's industries and institutions.

Highly competitive economies

• *What it could mean for Monash*: Planning to support industry to increase productivity and reduce costs, making Monash more attractive to international firms and more resilient in times of rapid disruption.

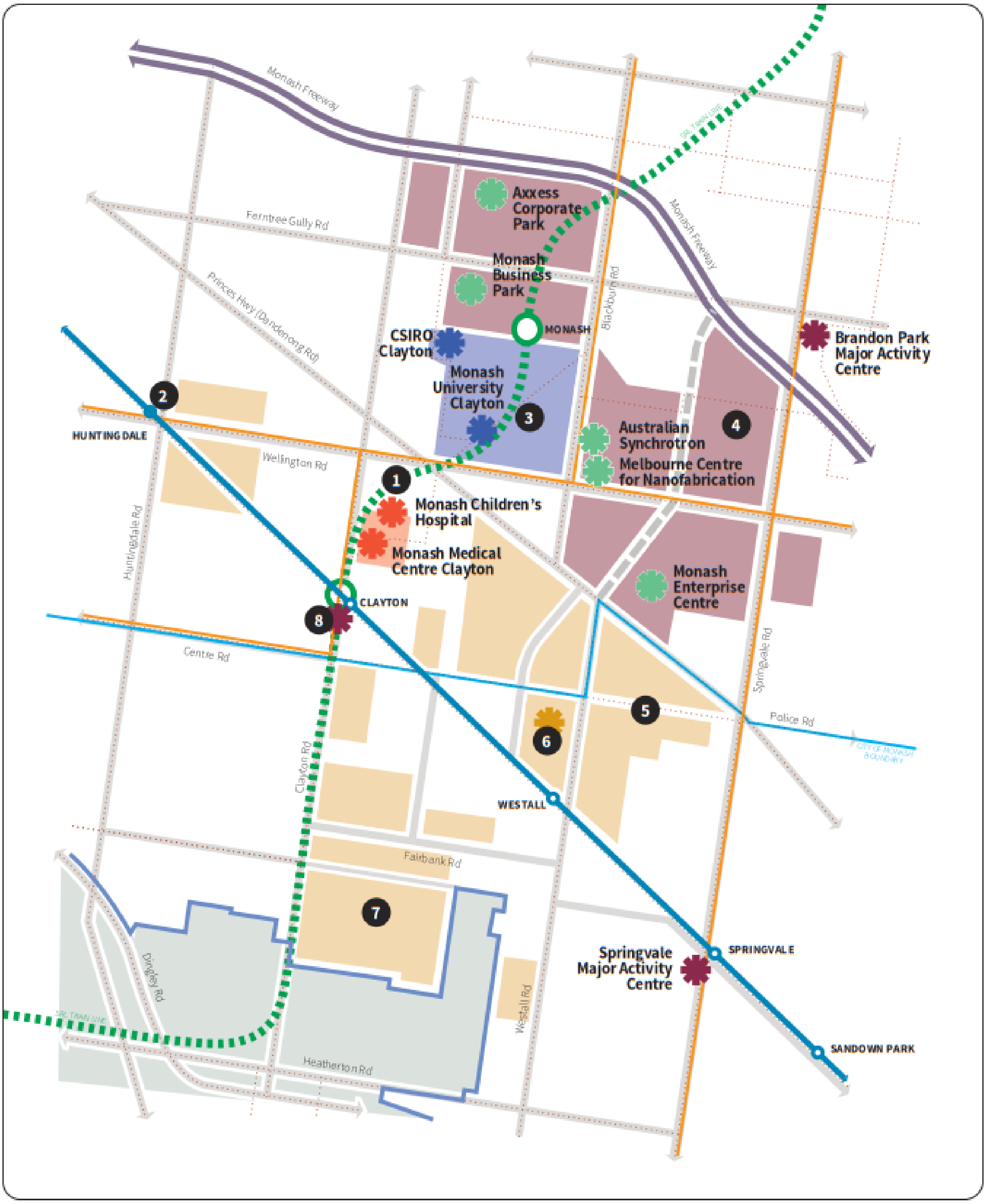
Population growth

• *What it could mean for Monash*: Melbourne is forecast to be a city of 9 million people by 2056, with major population increases forecast for Monash from the development of the SRL.

2.2. Monash National Employment and Innovation Cluster (MNEIC) and associated precincts in Monash

A map and legend indicating MNEIC's precincts and facilities is at Figure 3.

Figure 3 - Map of Monash National Employment and Innovation Cluster (MNEIC)



Source: Hatch, 2023.

Monash National Employment and Innovation Cluster (MNEIC)

1 **Suburban Rail Loop East**
SRL East will be constructed between Cheltenham and Box Hill. It will improve access to key education, health and employment centres in Melbourne's east and south-east, including the Monash NEIC. This transformative project will relieve pressure on roads and reduce travel times across the network, as well as reshaping the precincts around the SRL stations, creating more housing options, services and public and open space. It is scheduled to have trains running by 2035.

2 **Huntingdale Precinct**
The Huntingdale Precinct is the premier location for knowledge intensive based businesses seeking a location within the MNEIC that have synergies with education, health, technology and manufacturing in the Clayton Health and Education Research Precinct and Clayton, but do not require immediate proximity. These tenants are co-located within existing businesses which are growing and underpin the strength of the local economy.

The Precinct is a diverse village that provides a range of employment, recreation and residential opportunities. Offering spaces that allow for innovative businesses of all types, the industrial character inspires adaptable businesses that meet the needs of today and cater for the potential of the future."

3 **Monash Health & Education Precinct**
This is a major precinct for health services, tertiary education, research
and employment, currently employing around 17,200 people. These activities will grow and diversify in coming years, complimented by growth in student housing at Monash University and housing growth around the area. Arts, culture and sporting facilities make a significant contribution to the local community.

4 **Monash Technology Precinct**
Employment growth area, where business diversification and employment growth will be promoted through strong transport connections, such as the Westall Road extension. Currently the area provides employment for 31,800 people.

5 **Clayton/Springvale Employment Precinct**
Key precinct goals include continuing to support employment uses and industry transition in order to grow and diversify job opportunities in the Monash Cluster. Benefiting from a strong existing industrial base and direct access to Princes Highway, opportunities exist to grow and transition to new employment and mixed uses.

6 **Clayton Business Park**
Identified in the City of Kingston's Industrial Land Use Strategy as a potential redevelopment site for business and employment opportunities, services and facilities, increased housing diversity and better public spaces, adjacent Westall Station. This site could have potential for a new town centre to serve the local business community.

7 **Clayton South Industrial Precinct**
Continue to support employment uses and industry in order to foster innovation, growth and diversification of employment

8 **Clayton Activity Centre**
Key goals for the centre includes grow and diversify business opportunities, increasing access to services and facilities, improve housing diversity and creates better public spaces around the Clayton Activity Centre.

The MNEIC is identified by the Victorian Government as a precinct of international significance and is home to a number of important facilities and institutes, including major and specialist hospitals, the home campus of Australia's largest university, Monash University, the Melbourne Centre for Nanofabrication (MCN), the Australian Synchrotron, CSIRO, and major corporations including Lockheed Martin, Dulux Group, and Robert Bosch Australia (Bosch). It is also home to Eastern Innovation, a built for purpose flexible and shared working space equipped with wet and dry labs and business growth support services. Hosting over 83,000 jobs and with a GRP of $11.8 billion, MNEIC is a major driver of research, innovation, and start-ups for Australia. Over a billion dollars is spent annually by the university on research, the majority of which occurs within the MNEIC.[2]

The MNEIC is distinguished by a highly skilled workforce that excels in health, education, science, advanced manufacturing, and research. This workforce represents a tremendous foundation for future collaboration and innovation, making it an attractive destination for businesses and institutions looking to tap into cutting-edge expertise and knowledge.

The Clayton Health and Education Research Precinct forms part of MNEIC and incorporates several major research institutions including the Monash University, Monash Medical Centre, Monash Children's Hospital, the Victorian Heart Hospital, and CSIRO. There is a strong relationship between the university and hospitals, with medical students performing hands-on training in hospitals and many senior medical staff also serving as academics.

Innovation and entrepreneurship are integral to MNEIC, with considerable support provided to start-ups and spin-outs. For example, key statistics from the Monash Technology Precinct alone include:

- 13,000+ businesses leverage the clusters' innovation partnerships and facilities.
- 71 spin-outs have been launched using Monash University-owned IP.
- 22 portfolio companies exist in which Monash University holds equity.
- 7 new ventures have reached an exit through IPO since 2007.
- 21 active start-ups have been directly supported since 2016 through the Monash University Generator program.
- $440 million external capital raised for Monash University spin-outs since 2015.
- $250 million in capital expenditure per year.
- Access to a major portion of the $1 billion Monash University invests in world leading research per year.
- 40+ Monash Technology Research Platforms for industry use (Platforms all ISO9001 certified to meet industry requirements)
- 5,000+ PhD students.[3]

The importance of creating a vibrant innovation ecosystem is well recognised by the MNEIC's stakeholders. For example, several types of common user infrastructure are currently available within

[2] Consultation with Deputy Director, Precincts and Government, University of Monash, April 2023.

[3] Monash University, Monash Technology Precinct brochure, p 5.

MNEIC, including the Robert Bosch Australia manufacturing prototyping facility which assists start-ups to create and refine their products at minimal costs.

The nearly complete Monash Smart Manufacturing Hub will provide significant new support to the innovation ecosystem. The hub includes smart manufacturing infrastructure platforms and start-up/collaboration space that leverages robotics, data science and fabrication capabilities to enable industry access to low-cost rapid prototyping and testing at any point in the smart manufacturing cycle. The hub will provide considerable floor space for start-ups and spin-outs, with the potential to co-locate up to 30 companies and 1000 students.

The Monash Precinct Network (MPN) partnership is currently assessing the innovation ecosystem to determine what support is necessary for start-ups. Going forward, there will be opportunities for synergies between the health sciences and materials sciences sectors to create new specialisations and products that make MNEIC a world leader in this space.

2.2.1. Implications for Monash

Hosting the MNEIC creates significant benefits for Monash:

- **Economic benefits**: MNEIC hosts significant numbers of jobs and generates billions of dollars of economic activity in Monash, including attracting investment, major businesses, start-ups, and research institutions.
- **Innovation and collaboration**: MPN facilitates collaboration and knowledge sharing among important stakeholders, including researchers, businesses, and government agencies. This helps foster innovation, leading to advancements in specialisations, technologies, and knowhow which can help launch successful start-ups and scale-ups, and drive new product development in existing businesses.
- **Improved infrastructure**: MNEIC attracts and provides world-class infrastructure in Monash, including research facilities, laboratories, advanced manufacturing facilities, and facilities of international significance such as the Australian Synchrotron. This infrastructure supports the growth of a variety of industries and start-ups, and helps attract further investment.
- **Improved education and training opportunities**: The presence of Monash University and other education facilities such as the Monash Tech School improves education and training opportunities for local residents, Melbourne residents and international students. Critically, students gain hands-on experience in research, health, and education fields, as well as providing training and development programs for healthcare professionals. This had led to Monash residents having notably higher levels of education than Greater Melbourne (see Section 4.3).

2.3. Suburban Rail Loop

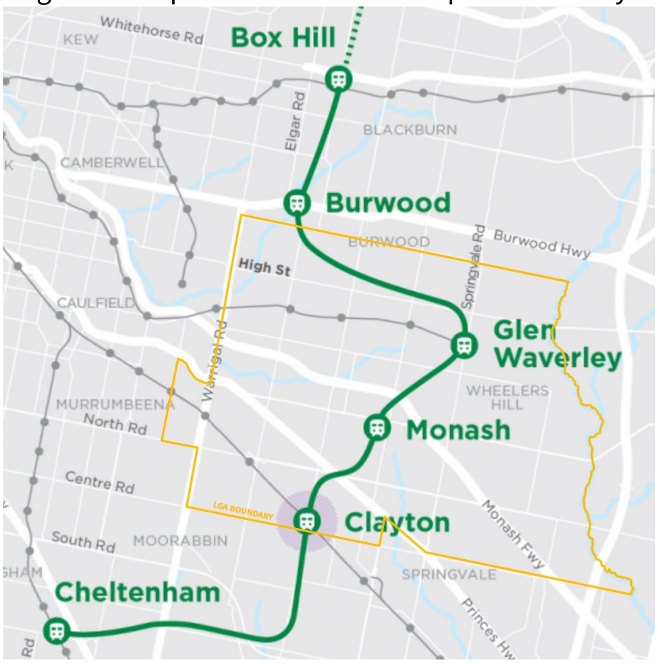
Suburban Rail Loop (SRL) is a construction project of national significance that will deliver a 90km rail line linking across the Greater Melbourne area. The intent of the SRL is to transform Melbourne into a “city of centres” that complement the importance of the CBD and helps slow the unsustainable growth occurring on the city’s urban fringe.

SRL will create significant impacts on Greater Melbourne, including a reduction of 600,000 cars on Melbourne's roads per day, and greatly improved connectivity between Melbourne airport and other key destinations, including Monash.

SRL East, the first stage of the SRL will create significant changes in Monash. The project aims to improve connectivity between Melbourne's eastern and south-eastern suburbs and ease congestion on major roadways, such as the Monash Freeway. It is estimated 70,000 passengers per day will use SRL east when operational.[4]

SRL East will be 28km long and connect Cheltenham to Box Hill via Clayton, Monash, Glen Waverley (which are located in the City of Monash) and Burwood (located close to City of Monash's northern boundary) (Figure 4). Whilst Burwood is not within Monash's boundary, it is included in this analysis due to its close proximity and resulting impact it will have on Monash.

Figure 4 - Map of Suburban Rail Loop East and City of Monash boundary



Source: Hatch, adapted from Big Build Victoria, 2023.

2.3.1. SRL East's precincts

Precincts based around each SRL East station will be critical new developments for Monash, with each precinct having its own ambition statements, and population and jobs targets. Precincts will be based around a catchment radius of 1.6km.[5]

Table 1 indicates each precincts' ambition statement and anticipated number of daily transfers.

[4] Victoria's Big Build, SRL East Glen Waverley fact sheet, website, last accessed April 2023.

[5] Victoria's Big Build, SRL East Glen Waverley fact sheet, website, last accessed April 2023.

Table 1 - Overview of SRL East key precincts

Precinct	Ambition statement - vision for 2056	Daily number of station transfers
yton	Clayton will be a leading health cluster and 'transport super hub' for Melbourne's southern metropolitan and Gippsland region. Home to world-standard healthcare and leading-edge commercialised research and development innovations, it will also be a hub for local living services and maintain high amenity environment.	90,000 transfers
Monash	Monash Precinct will be known globally for innovation, building on Monash University's strengths in science, technology, engineering and mathematics (STEM) to attract and retain leading global firms. Significant employment growth will be supported by an attractive public realm, comprehensive walking, cycling and public transport networks, and a diverse lifestyle and hospitality offering.	10,000 transfers
Glen Waverley	Glen Waverley will be a centre for workers, students and residents, accessible from across the eastern metropolitan region and anchored by a vibrant multicultural core. Central Glen Waverley will grow through an intensified mix of businesses, retail, services and entertainment uses, within a pedestrian- and cycling-friendly local environment.	20,000 transfers
Burwood	Burwood will have significant mixed-use activity areas and be a major education precinct for Victoria, anchored by Deakin University's strengths as a leader in technology and commerce. An activated public realm along the Burwood Highway corridor will support more jobs and residents and enhanced access to Gardiners Creek will be supported by comprehensive walking and cycling links.	11,000 transfers

Source: Hatch 2023, based on SRL Business and Investment Case - Victoria's Big Build.

2.3.2. Forecast jobs growth from SRL East

Forecast ongoing jobs growth in Monash resulting from SRL East is described at Table 2.

Table 2 - Forecast ongoing jobs growth in Monash resulting from SRL East

Precinct (1.6 km catchment)	Jobs in 2018	Forecast jobs in 2056	Difference (%)
Clayton	21,000	57,500	174%
Monash	36,500	162,000	344%
Glen Waverley	11,500	25,000	117%
Burwood	11,500	24,000	109%

Source: Hatch Roberts-Day (2023), based on SRL Business and Investment Case, 2021.

The analysis indicates that Monash will experience extremely strong growth in jobs by 2056 due to SRL East. A total of 188,000 new jobs are forecast by 2056 across the four precincts, 175,500 of which are forecast for the three precincts within Monash. This represents almost 151,000 additional jobs across the three Monash precincts than would be expected compared to Monash's historic rate of job growth from 2012-2022 of 9.4%.[6]

Forecast jobs growth is particularly strong for the Monash precinct, which is anticipated to experience over 340% increase in jobs numbers by 2056, reflecting the precinct's ambition to be an innovation and technology precinct (see Table 1).

It should be noted that 8,000 construction jobs are forecast to be created by building SRL East.[7]

2.3.3. Forecast population growth from SRL East

Forecast population growth in Monash resulting from SRL East is described at Table 3.

Table 3 - Forecast population growth in Monash resulting from SRL East

Precinct (1.6 km catchment)	Population in 2018	Forecast population in 2056	Difference (%)
Clayton	23,000	55,000	139%
Monash	14,000	30,500	118%
Glen Waverley	22,500	46,500	107%
Burwood	22,000	44,500	102%
Total	81,500	176,500	116%

Source: Hatch 2023, based on SRL Business and Investment Case, 2021.

The analysis indicates that Monash will likely experience very high population growth by 2056 due to SRL East. A total of 95,000 new residents are forecast by 2056 across the four precincts, 72,500 of whom are forecast to reside in the three precincts within Monash. This represents over 41,000 additional residents within the three Monash SRL precincts compared to previous population growth projections for Monash (based on Monash LGA's pre-SRL forecast population growth rate of 22.53% from 2023-2041).[8] In particular, the Clayton precinct is forecast to experience over 130% in population growth by 2056, leveraging its ambition statement of becoming a "transport super hub" (see Table 1).

2.3.4. SRL East timelines

Key SRL East timelines are outlined below:

[6] Hatch analysis based on Economy ID, 2023.

[7] Email from Precinct Director, Monash & Clayton, Suburban Rail Loop Authority, April 2022.

[8] Forecast ID, website, last accessed June 2023.

- Initial works - underway.
- Precinct structural planning - commencing in 2023.
- Major works - 2026 – 2030.
- Trains running by 2035.

2.3.5. Implications for Monash

SRL East will have staggering implications for Monash:

- **New jobs**: 188,000 forecast new jobs by 2056.
- **Strong population growth**: 95,000 in forecast residential growth by 2056.
- **New precincts**: Three major new precincts will be created/expanded, with a fourth just outside Monash's northern boundary.
- **Increased connectivity**: Greater access to, and reduced commute time across, the Greater Melbourne area, giving access to a considerably broader workforce.

By 2056 SRL East will transform Monash into a substantially different place for residents, workers, visitors and enterprises than it is today.

Please note that opportunities for Monash from the introduction of SRL East, and potential synergies with the MNEIC, are analysed at section 6.

3. Monash's economy

127,800 Jobs

$49,600

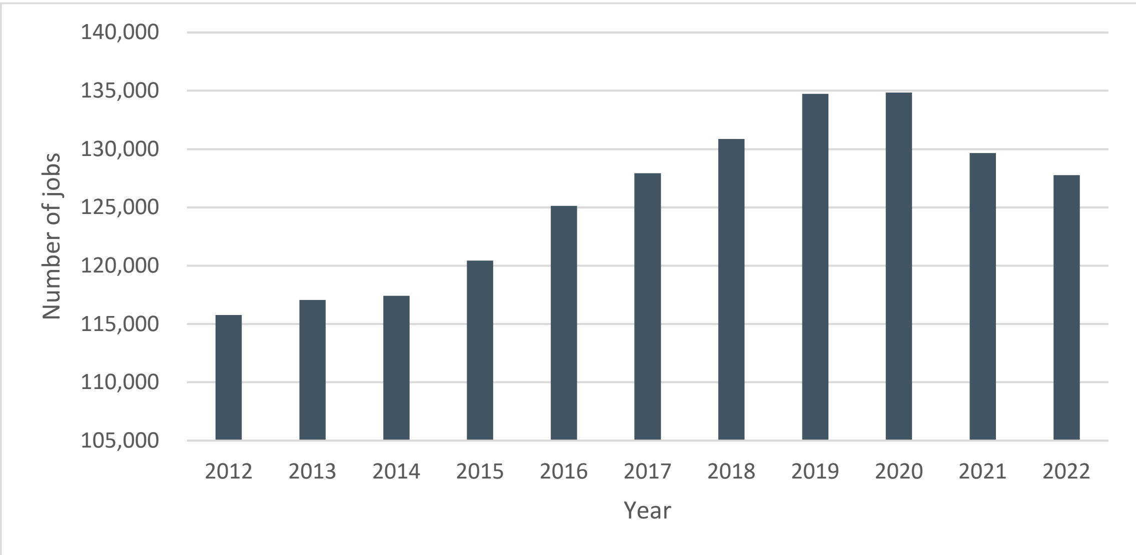
Median employee annual income

(2019 data, includes part time workers)

3.1. Jobs in Monash

Number of jobs in Monash over time is described Figure 5.

Figure 5 - Jobs in Monash over time



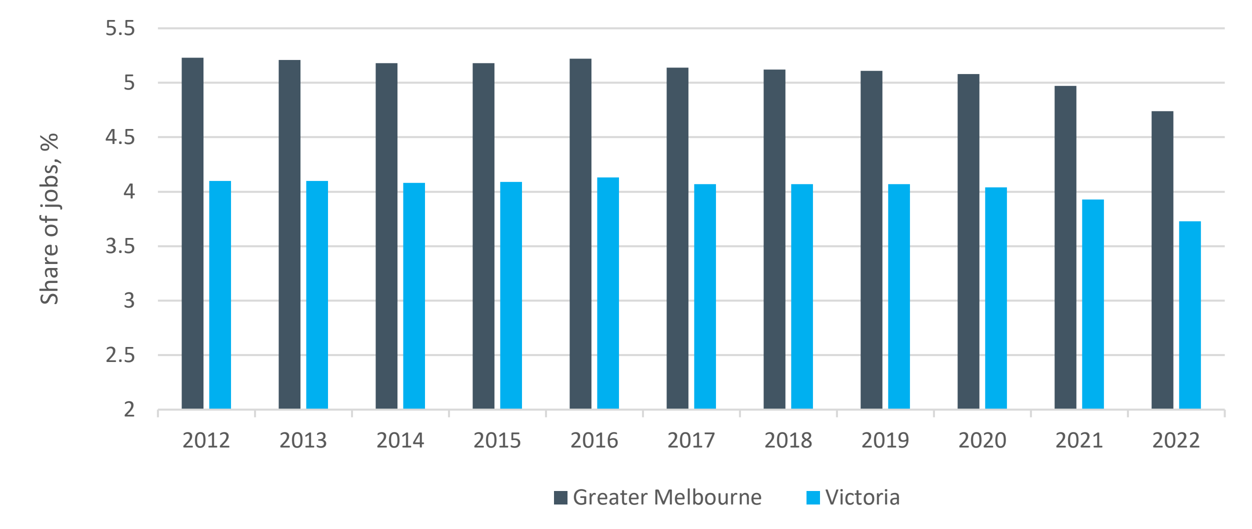
Source: Economy ID, 2023.

The analysis indicates:

- Monash had 127,760 jobs in 2022.
- The number of jobs in Monash increased strongly from 2015 (approximately 120,000) to 2020 (approximately 134,000) before decreasing, most likely as a result of the COVID-19 pandemic.
- Modelled job figures (pre-pandemic) anticipated over 145,000 jobs in Monash by 2022. This indicates the significant impact that pandemic has had on jobs in Monash.
- Anecdotally it is expected that there will be some recovery seen in the 2023 figures when released.

Monash jobs as a percentage of all jobs in Greater Melbourne, and Victoria, over time is described at Figure 6.

Figure 6 – Monash jobs as a percentage of all jobs in Greater Melbourne, and Victoria, over time



Source: Hatch 2023, based on Economy ID.

The analysis indicates:

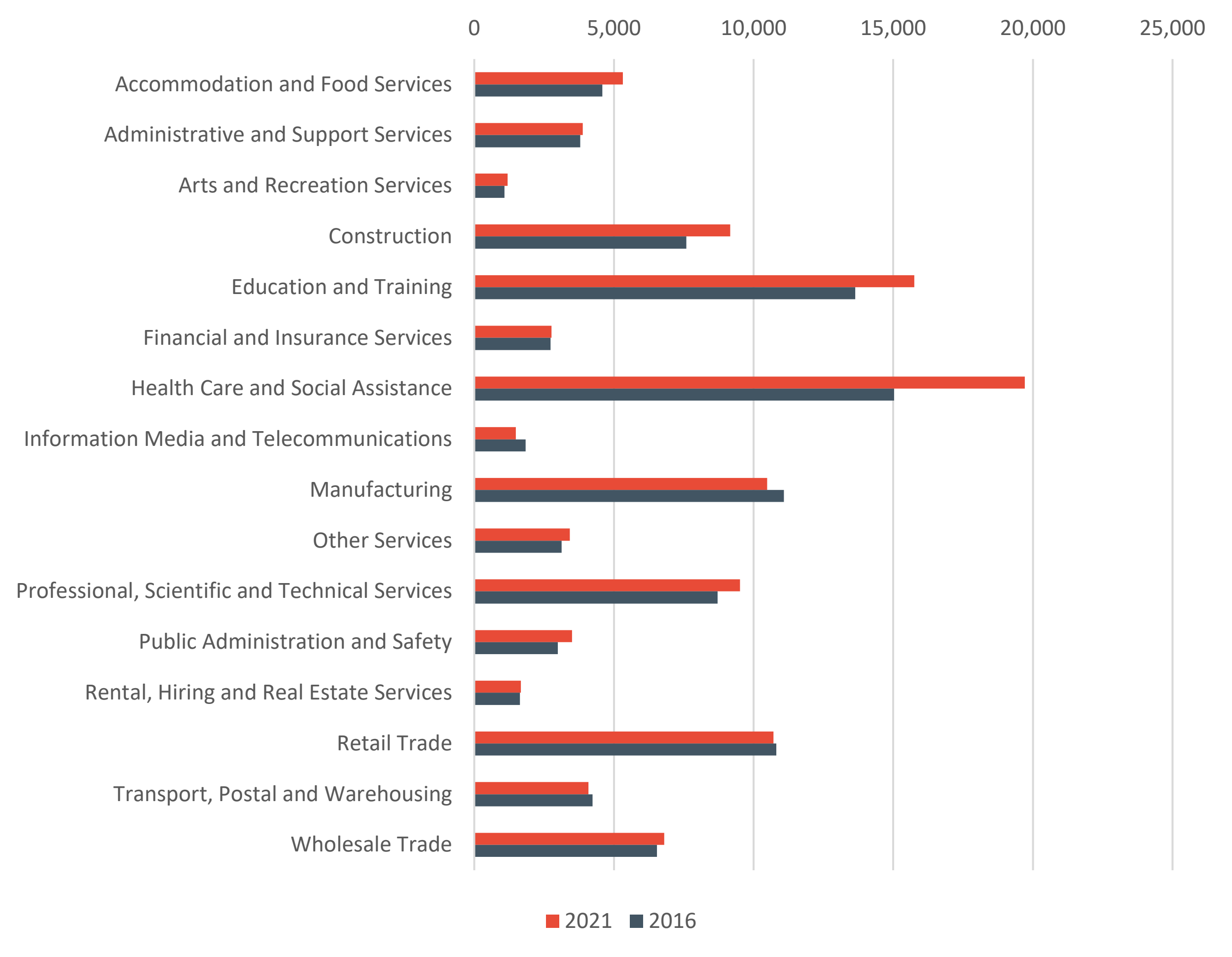
- Monash's jobs as a percentage of all Victorian jobs declined from 4% in 2020 to 3.7% in 2022 i.e. at approximately the same time as the COVID-19 pandemic.
- Monash's jobs as a percentage of all Greater Melbourne's jobs also declined from 5.1% to 4.7% during this period.
- As of March 2023, Monash's unemployment rate was 2.4% compared to 3.8% for Greater Melbourne.[9]

3.1.1. Local jobs by industry

'Local jobs' consists of all jobs located in Monash, regardless of where the workers live. Numbers of local jobs by industry in Monash over time is described at Figure 7.

[9] Economy ID, website, last accessed July 2023.

Figure 7 - Numbers of local jobs (total) by industry in Monash (Census)



Source: Economy .id, 2021.

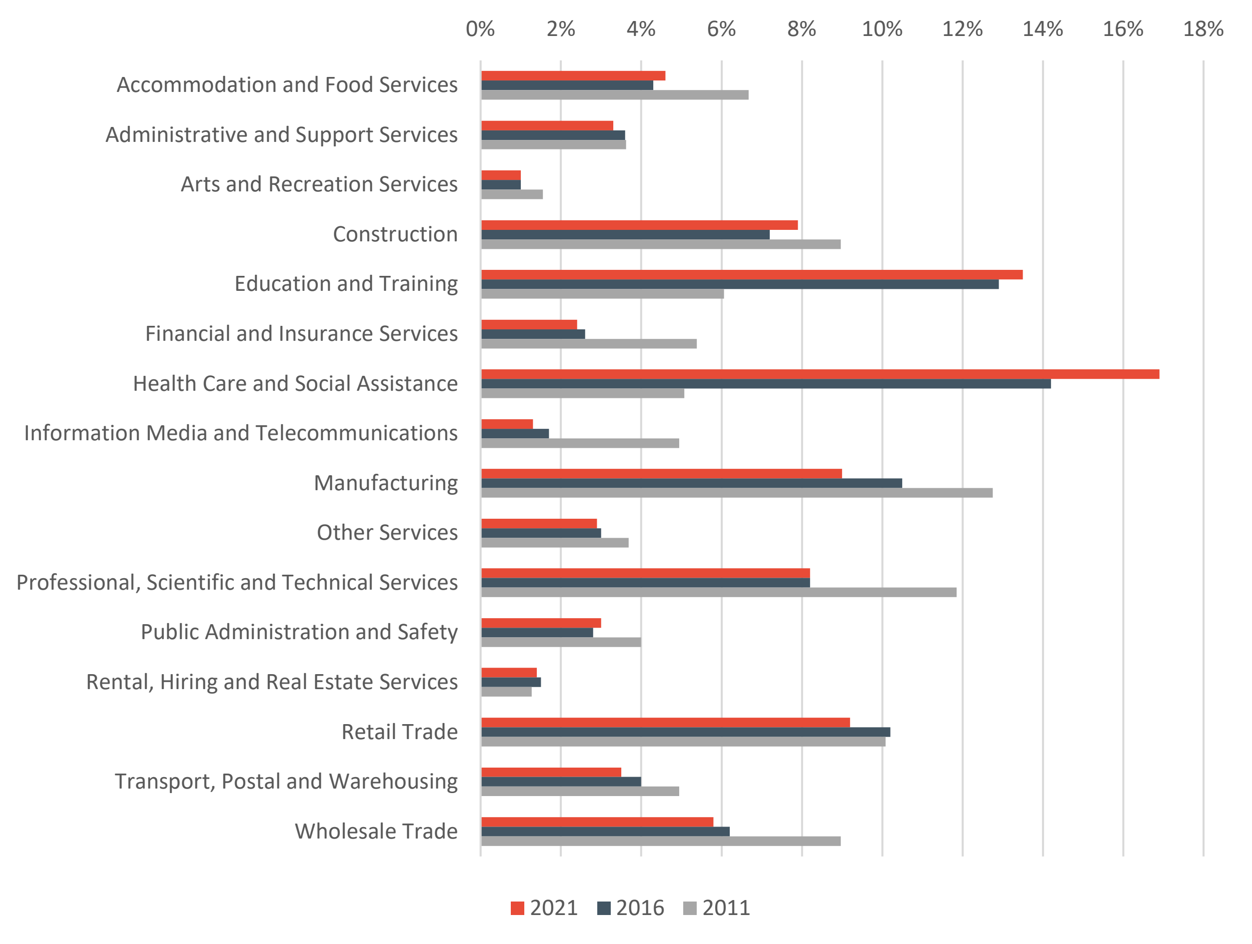
The analysis indicates that between 2016 and 2021 Monash experienced:

- 116,697 local jobs in 2021, up from 105,787 in 2016. [10]
- Strong growth in local jobs in industries including Construction (approximately 7,500 to 9,100 jobs), Professional, Scientific and Technical Services (approximately 8,700 to 9,500 jobs), and Health Care and Social Assistance (approximately 15,000 to 19,700 jobs).
- Reduced supply of local jobs in Manufacturing (approximately 11,100 to 10,500 jobs).
- Moderate increase in local jobs in most other industry sectors.

[10] Please note the total job numbers for Figure 5 and Figure 7 do not align due to differences in methodology, as Figure 5 is based on forecasting while Figure 7 is based on 2021 Census.

Distribution of local jobs by industry for Monash over time is described at Figure 8.

Figure 8 - Distribution of local jobs by industry for Monash over time (Census)



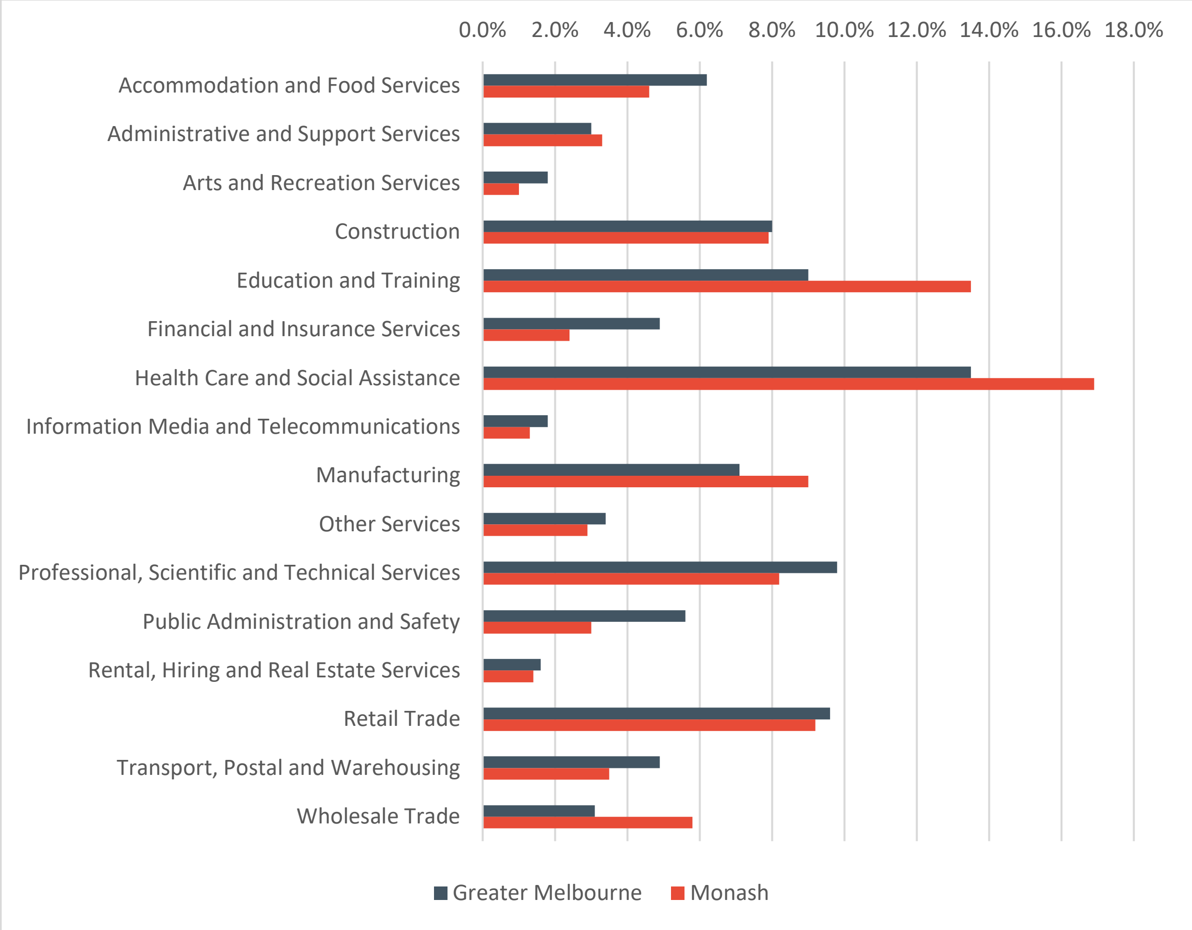
Source: Economy .id, 2021.

The analysis indicates between 2011 and 2021 Monash experienced:

- Strong growth in the rate of local jobs in Monash in Education and Training (6.1% to 13.5%) and Health Care and Social Assistance (5.1% to 16.9%).
- Strong reduction in the rate of local jobs in Monash in Financial and Insurance Services (5.4% to 2.4%), Information Media and Telecommunications (4.9% to 1.3%), Manufacturing (12.8% to 9%), Professional, Scientific and Technical Services (11.9% to 8.2%), and Wholesale Trade (9% to 5.8%).

Distribution of local jobs by industry for Monash and Greater Melbourne is described at Figure 9.

Figure 9 – Distribution of local jobs by industry - City of Monash and Greater Melbourne (Census)



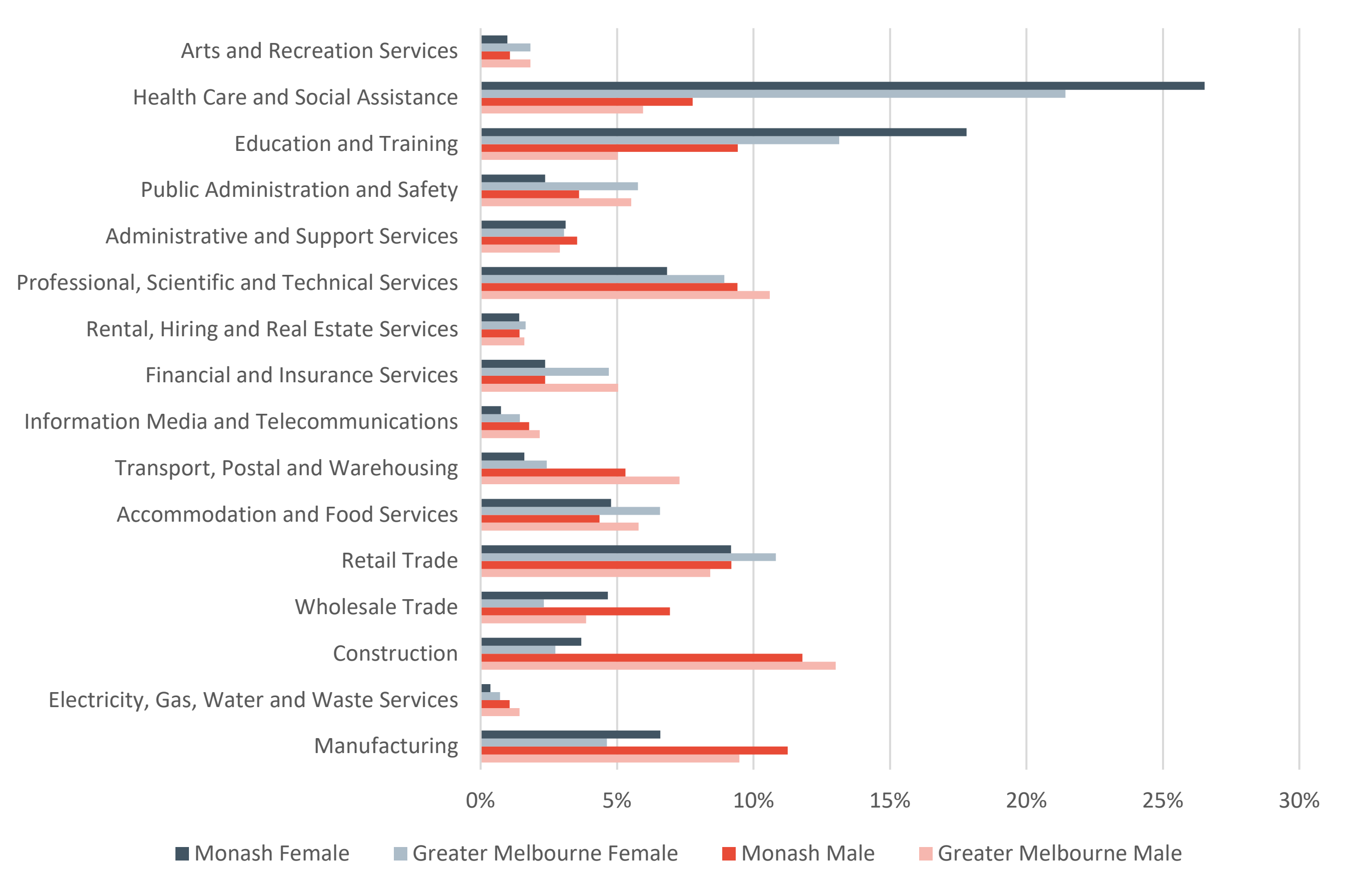
Source: Economy .id, 2021.

The analysis indicates:

- Monash has notably higher rates of employment than Greater Melbourne for the following industries: Health Care and Social Assistance, Education and Training, Manufacturing, Wholesale Trade.
- Greater Melbourne has notably higher rates of employment than Monash for the following industries: Accommodation and Food Services, Financial and Insurance Services, Professional, Scientific and Technical Services, Public Administration and Safety.

Distribution of local jobs by industry, by sex, for Monash and Greater Melbourne is described at Figure 10 .

Figure 10 - Distribution of local jobs by industry, by sex – City of Monash and Greater Melbourne, 2021 (Census)



Source: Economy .id, 2021.

The analysis indicates that for people working in Monash:

- Female workers in Monash are substantially more prevalent in Health Care and Social Assistance (27%) than females working in Greater Melbourne (21%).
- Female workers in Monash are substantially more prevalent in Education and Training (18%) than females working in Greater Melbourne (13%).
- Female workers in Monash are more prevalent in Manufacturing (7%) than females working in Greater Melbourne (5%).
- Male workers in Monash are more prevalent in Manufacturing (11%) than males workers residing in Greater Melbourne (9%).

Economic implications for Monash – Employment by industry

- Monash's strong health care sector, including hospitals and university specialisations, is attracting high numbers of female workers.

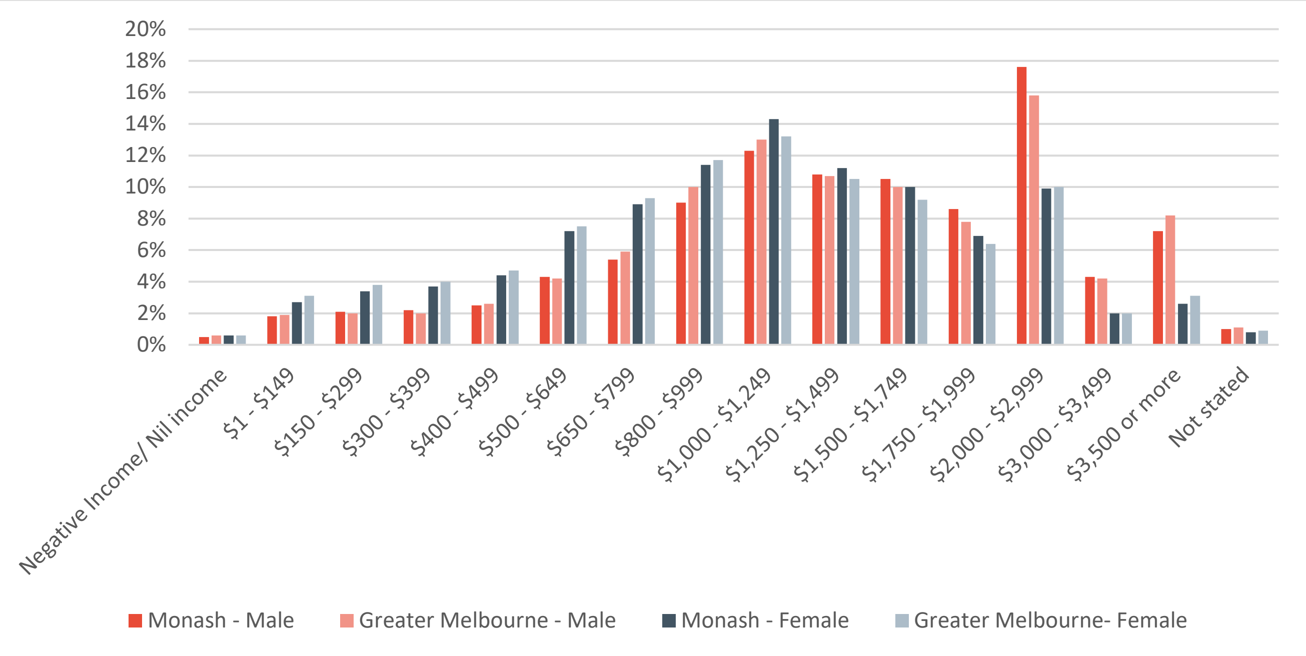
- Monash's existing comparative advantage in manufacturing can potentially be combined with health care research and education to create new specialisations such as manufacturing unique health care products.

3.1.2. Local workers - income, labour force status and participation

'Local workers' are defined as workers who are employed in jobs in Monash, regardless of their place of residence.

Local worker weekly income by sex in Monash and Greater Melbourne is described at Figure 11.

Figure 11 - Local worker weekly income, by sex – City of Monash and Greater Melbourne, 2021



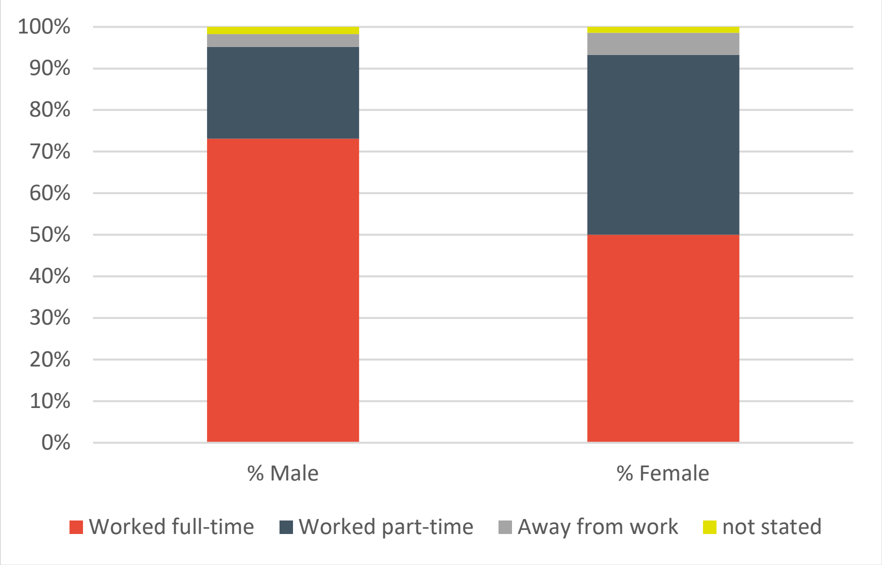
Source: Profile .id, 2021.

The analysis indicates:

- 14.3% of women local workers in Monash earn $1,000-$1,249 per week, compared to 13.2% in Greater Melbourne.
- 9.9% of women local workers in Monash earn $2,000-$2,999 per week, compared to 17.6% for men.
- 10% of women local workers in Greater Melbourne earn $2,000-$2,999 per week, compared to 15.8% for men.
- A greater share of female local workers are represented in lower pay brackets (below $1,499 per week) in both Monash and Greater Melbourne, while male local workers are more represented in higher pay brackets.

Labour force status for local workers by sex in Monash is described at Figure 12.

Figure 12 - Labour force status for local jobs by sex in City of Monash, 2021



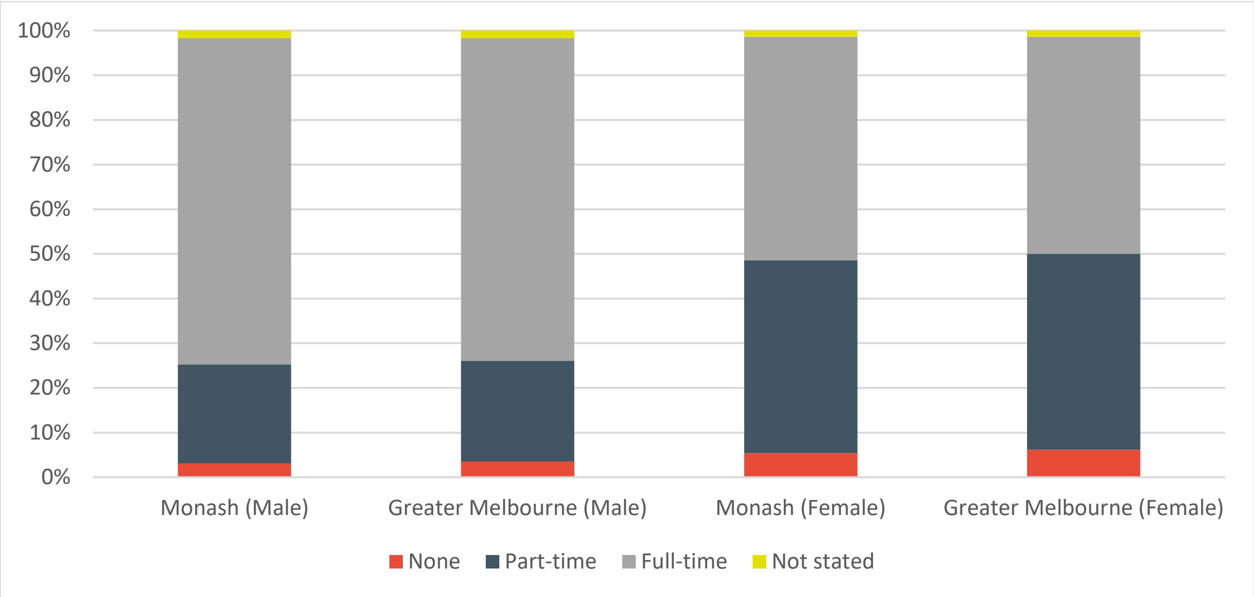
Source: Hatch 2023, based on ABS, 2021.

The analysis indicates that for local workers:

- A substantially greater share of males (73%) work full time than females (50%).
- Conversely, a substantially greater share of females (43%) worked part time than males (22%).

Labour force status for local workers, by sex in Monash and Greater Melbourne is described in Figure 13.

Figure 13 - Labour force employment status for local workers, by sex - City of Monash and Greater Melbourne, 2021



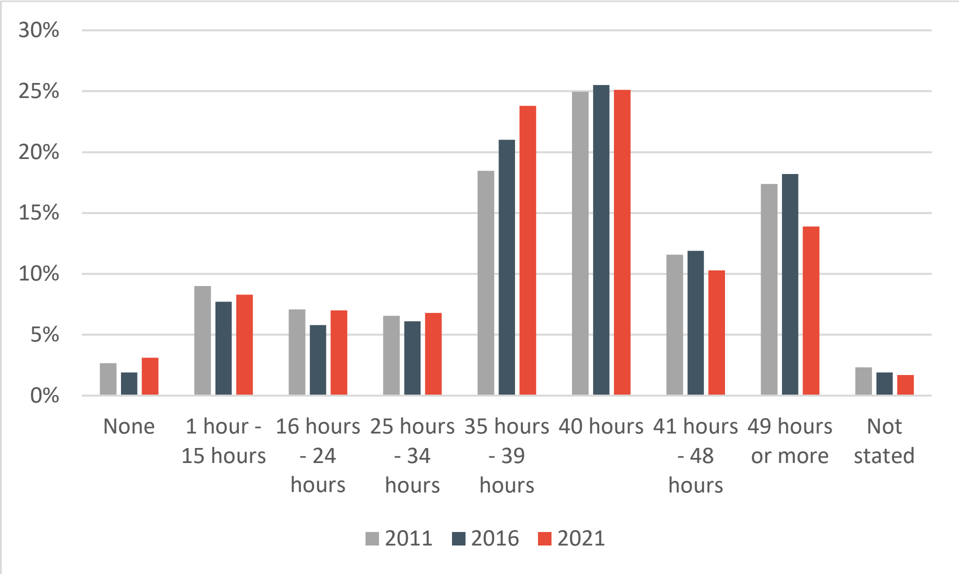
Source: Hatch 2023, based on Economy .id, 2021.

The analysis indicates:

- Ratios of both males' and females' labour force employment status is approximately equivalent for local workers in Monash compared to Greater Melbourne, across all categories.
- A substantially greater proportion of female local workers work part time in Monash (43%) and Greater Melbourne (44%) compared to than males (22% and 23% respectively).

Distribution of weekly hours of work, by male local workers, in Monash is described at Figure 14.

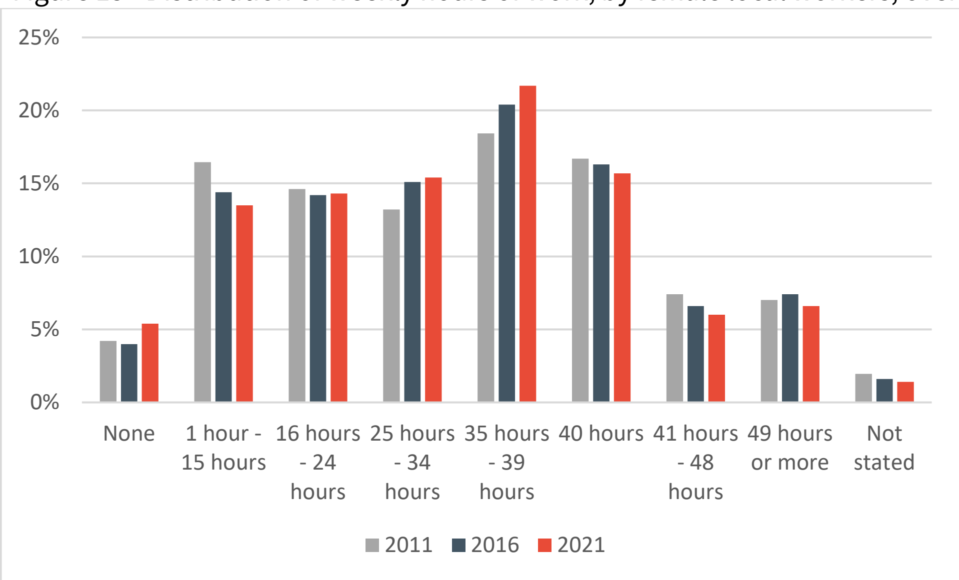
Figure 14 – Distribution of weekly hours of work, by male local workers, over time – City of Monash



Source: Hatch 2023, based on Economy .id, 2021.

Distribution of weekly hours of work, by female local workers, in Monash is described at Figure 15.

Figure 15 - Distribution of weekly hours of work, by female local workers, over time - City of Monash



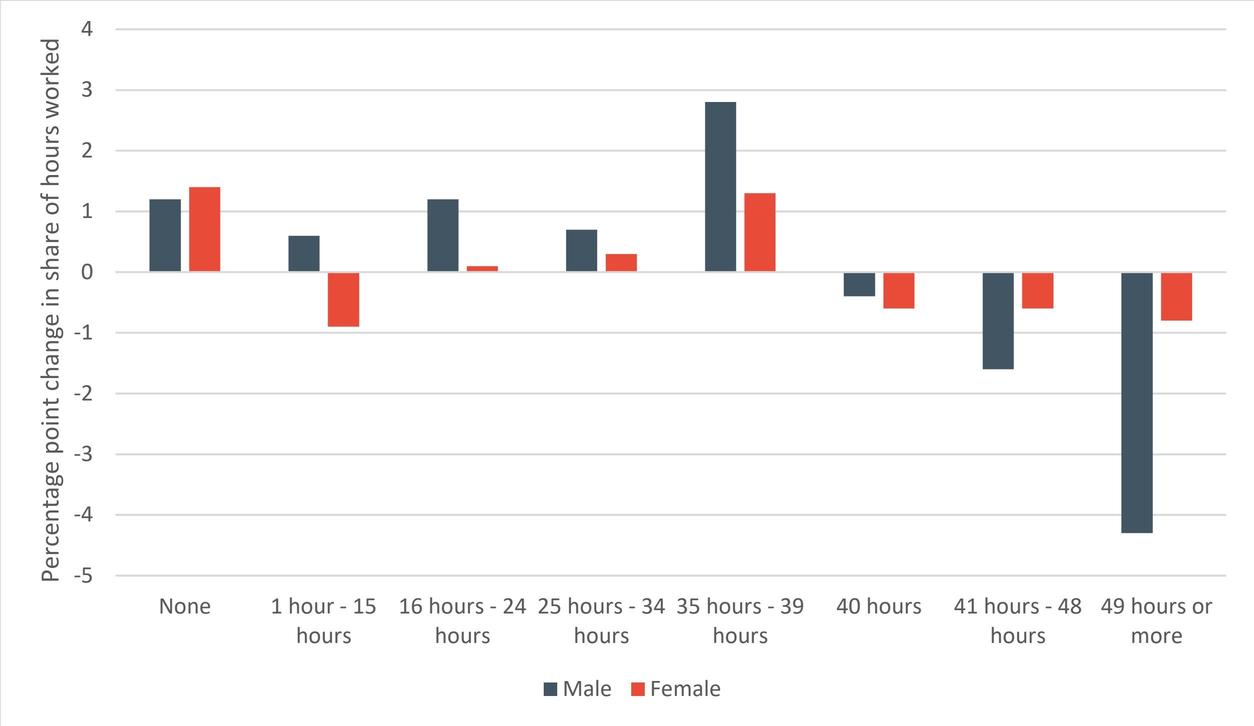
Source: Hatch 2023, based on Economy .id, 2021.

The analysis indicates:

- A majority of male local workers work more than 35 hours per week.
- A majority of female local workers work less than 40 hours per week, but this rate has increased over time.
- A greater share of male local workers in 2021 were working 35-39 hours a week, and a lower share were working more than 41 hours a week, compared to 2011.
- A greater share of female local workers in 2021 were working between 16 and 39 hours a week, and a lower share were working more than 40 hours a week, compared to 2011.

Change in weekly hours of work distribution, by sex, 2016 - 2021 for local workers is described at Figure 16.

Figure 16 - Change in weekly hours of local workers' work distribution, by sex, 2016 - 2021 City of Monash

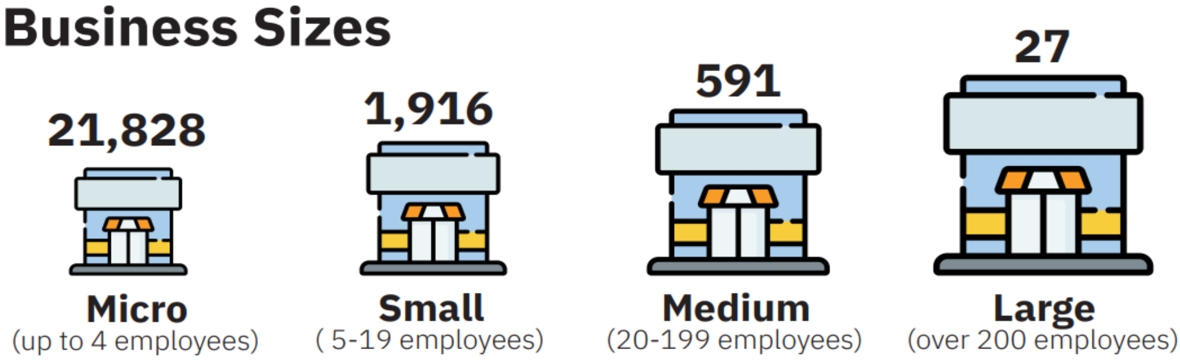


Source: Hatch 2023, based on Economy .id, 2021.

The analysis indicates that:

- Since 2016, the share of local workers working more than 40 hours or more a week has fallen for both sexes, particularly for men working 49 hours a week or more.
- Since 2016, the share of local workers who are women working between 16 and 39 hours a week has risen.

3.2. Businesses and key industry sectors



The number of registered businesses in Monash, by the number of employees, is shown at Table 4.

Table 4 - Number of businesses in Monash by number of employees

	>5 Employees	5-19 Employees	20-199 Employees	200+ Employees	Total
Number of businesses	21,828	1,916	591	27	24,362

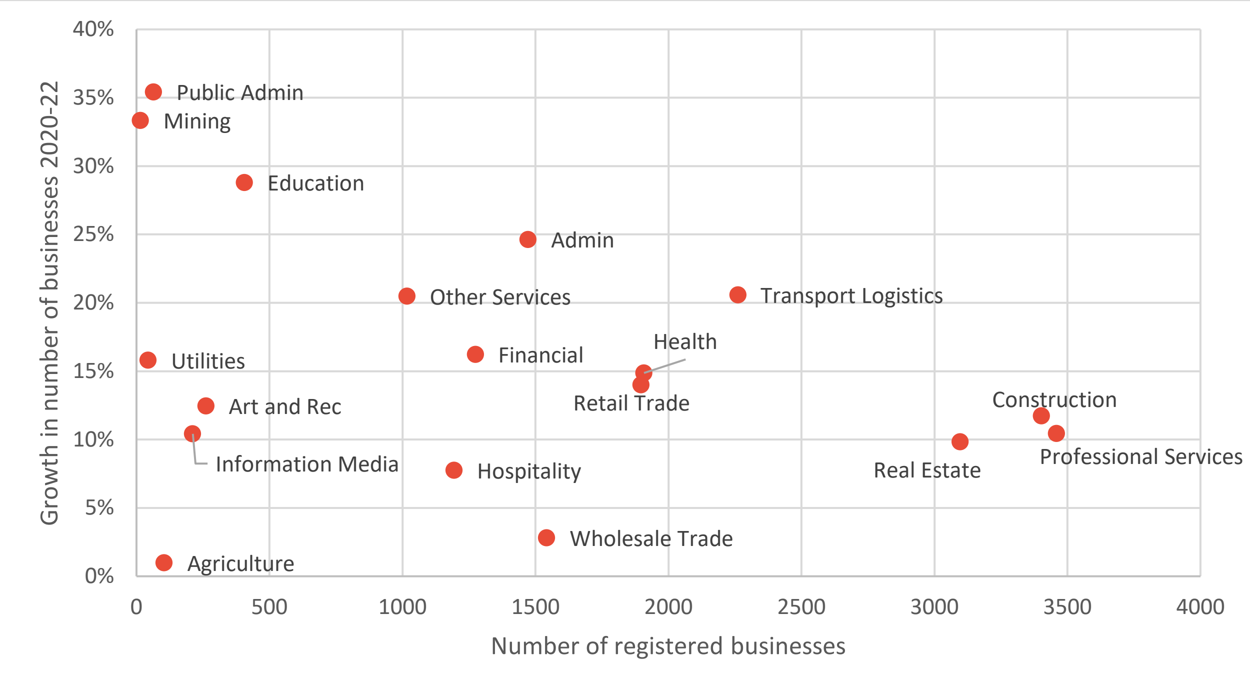
Source: Hatch 2023, based on Economy id., 2021.

The analysis indicates that:

- 24,362 businesses are registered in Monash.
- A significant majority of these businesses have less than 20 employees.

Number of registered businesses in Monash, and their growth, is described at Figure 17.

Figure 17 - Registered business share and growth from 2020-22 for City of Monash



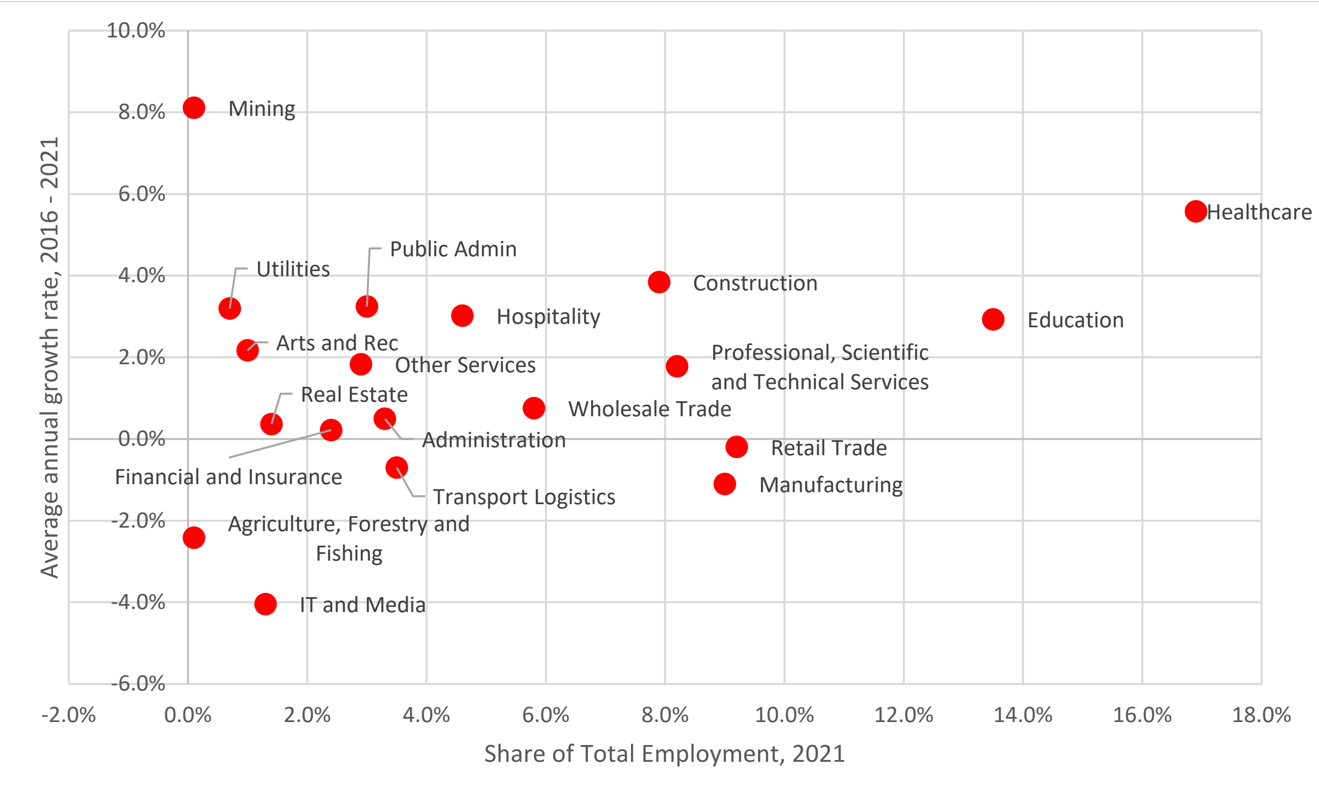
Source: Hatch 2023, based on Economy id., 2021.

The analysis indicates:

- Professional Services (3,459), Construction (3,403), and Real Estate (3,097) industries have the largest numbers of registered businesses. This is likely because many of these businesses are likely to be SME businesses which are sole traders i.e. have low numbers of employees.
- The highest growth in registered businesses is for Public Administration (35%), Mining (33%), and Education (29%) industries.

Share of total employment by industry, and average annual employment growth, is described at Figure 18.

Figure 18 - Industry employment share and 5-year growth - City of Monash



Source: Hatch 2023, based on Economy .id, 2021.

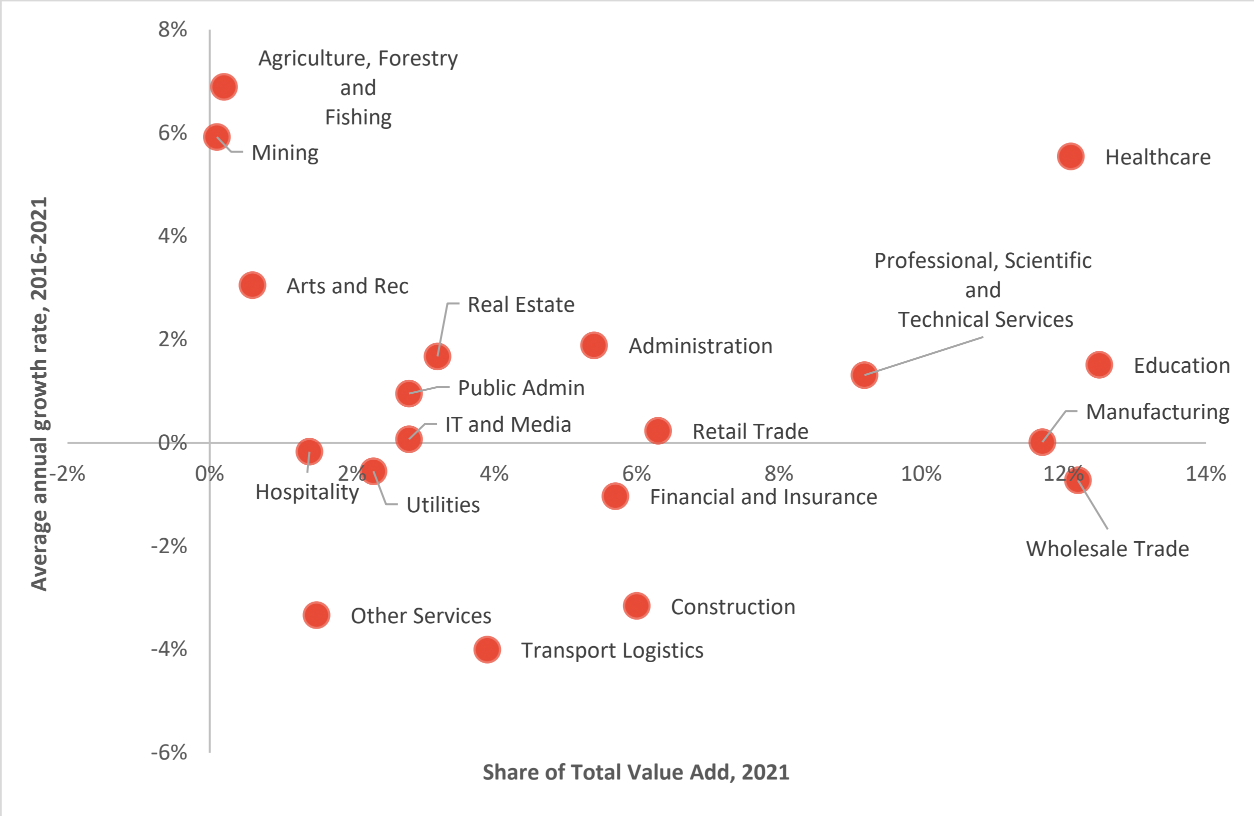
The analysis indicates:

- Healthcare (16.9%) and Education (13.5%) have the highest total share of employment in Monash.
- Mining (8.1%) and Healthcare (5.6%) have the greatest employment growth in Monash from 2016-2021.

Note that 'Other Services' are defined as general maintenance and repair services, personal care services, religious services, and special interest services. It is not clear why this industry sector has grown by 2%, although it is possible that some self-employed students may have classified their small businesses under this category.

Industry by share of value add, and 5-year growth, is described at Figure 19.

Figure 19 - Industry share of value add and 5-year value add growth - City of Monash



Source: Hatch 2023, based on Economy .id, 2021.

The analysis indicates:

- Education (12.5%), Wholesale Trade (12.2%), and Healthcare (12.1%), have the highest share of value add.
- Agriculture, Forestry and Fishing (6.8%), Mining (5.9%) and Healthcare (5.5%) have the highest growth rate for value add.

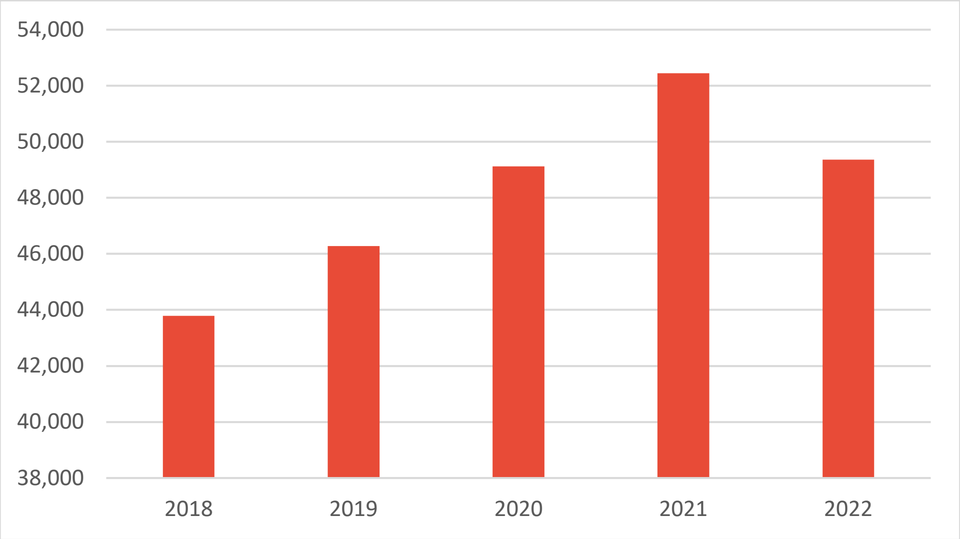
Economic implications for Monash – businesses and key industry sectors

- Monash should continue to leverage its key industry sectors of healthcare and education, both of which have high growth in numbers of registered businesses, growth in total employment rates, and share of total value-add.

3.2.1. Students enrolled at Monash University

Monash University's Clayton campus is a major driver of Monash's economy due to the large number of students hosted there. Student enrolment (headcount) by attendance type, with Clayton Campus as coordinating campus, is described at Figure 20.

Figure 20 – Monash University student enrolment (headcount) with Clayton campus identified as coordinating campus, full and part time combined



Source: Monash University annual report, 2022.

The analysis indicates:

- In 2022 the Clayton campus had 49,366 students enrolled (headcount).
- Student enrolments (headcount) with the Clayton campus as their coordinating campus have grown steadily since 2018 when 43,788 students were in enrolled, peaking in 2021 at 52,445 students before declining, most likely due to the pandemic.

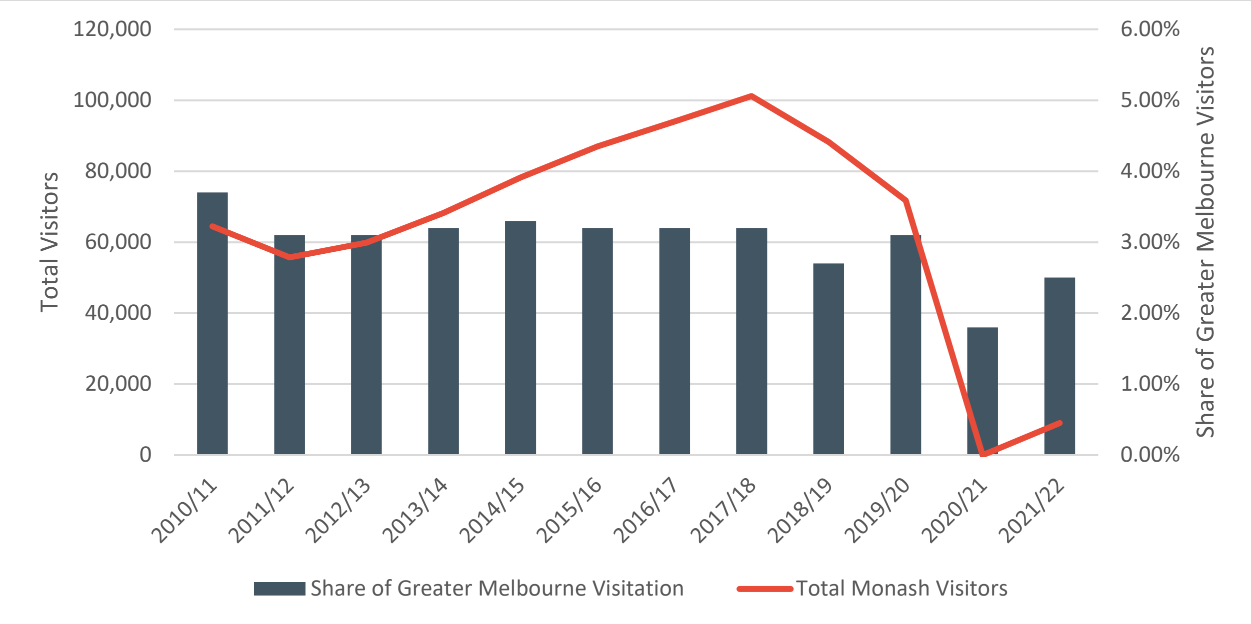
Economic implications for Monash – students

- Monash should continue to leverage its comparative advantage of attracting large numbers of international students.

3.2.2. Tourism in Monash

Tourism visitation over time for Monash is described at Figure 21.

Figure 21 - Tourism visitation over time - City of Monash



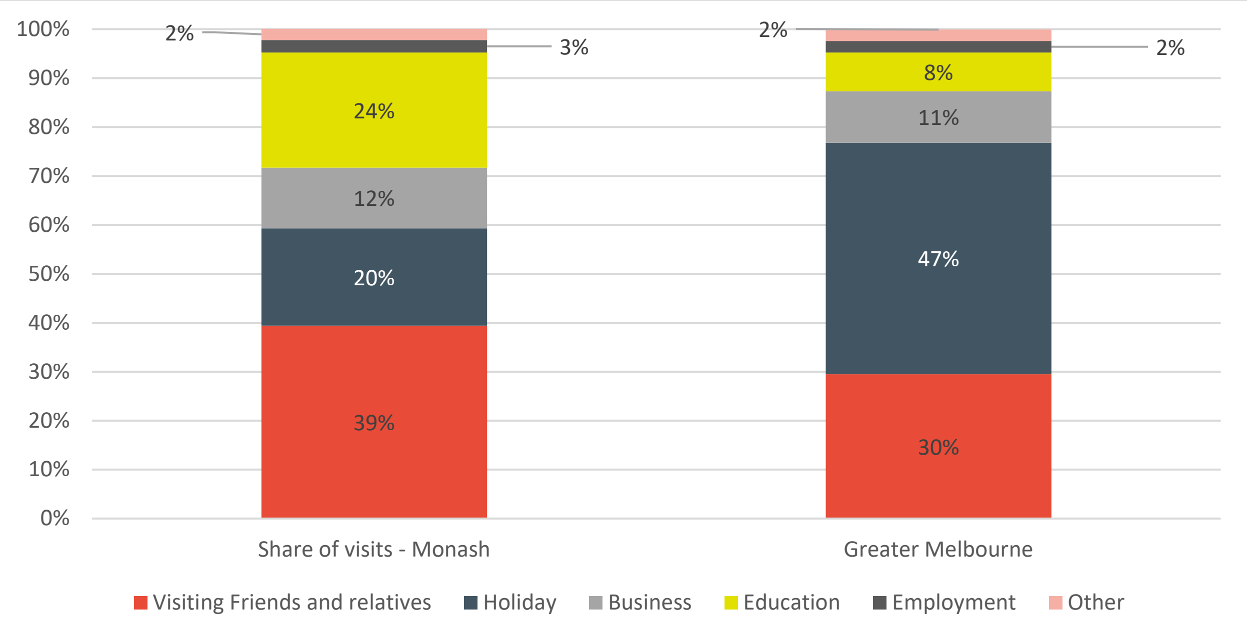
Source: Economy .id, 2021.

The analysis indicates:

- Monash's maximum number of tourists since 2010/11 was 101,181 in 2017/18.
- Approximately 9,000 tourists visited Monash in 2021/22, representing 2.5% of Greater Melbourne's total visitation.
- Tourism visitation decreased from 2017/18 to 2020/21, before beginning to recover. While some of this can be attributed to the COVID-19 pandemic (particularly from 2020 onwards), it is unclear what has instigated the downturn before the start of the pandemic.
- The pandemic clearly resulted in decreasing numbers of visitors to Monash, reaching a low of zero visitors in 2020/21 when Melbourne was in lockdown.
- Monash's share of Greater Melbourne's visitation also began to recover in 2021/22.

International visitors by reason of travel, 5-year average, for Monash and Greater Melbourne, is described at Figure 22. Please note that a five year average is used, as the considerable impacts of the COVID-19 pandemic mean a longer time period would be too distorted for meaningful comparison.

Figure 22 - International visitors by reason of travel, 5-year average – City of Monash and Greater Melbourne



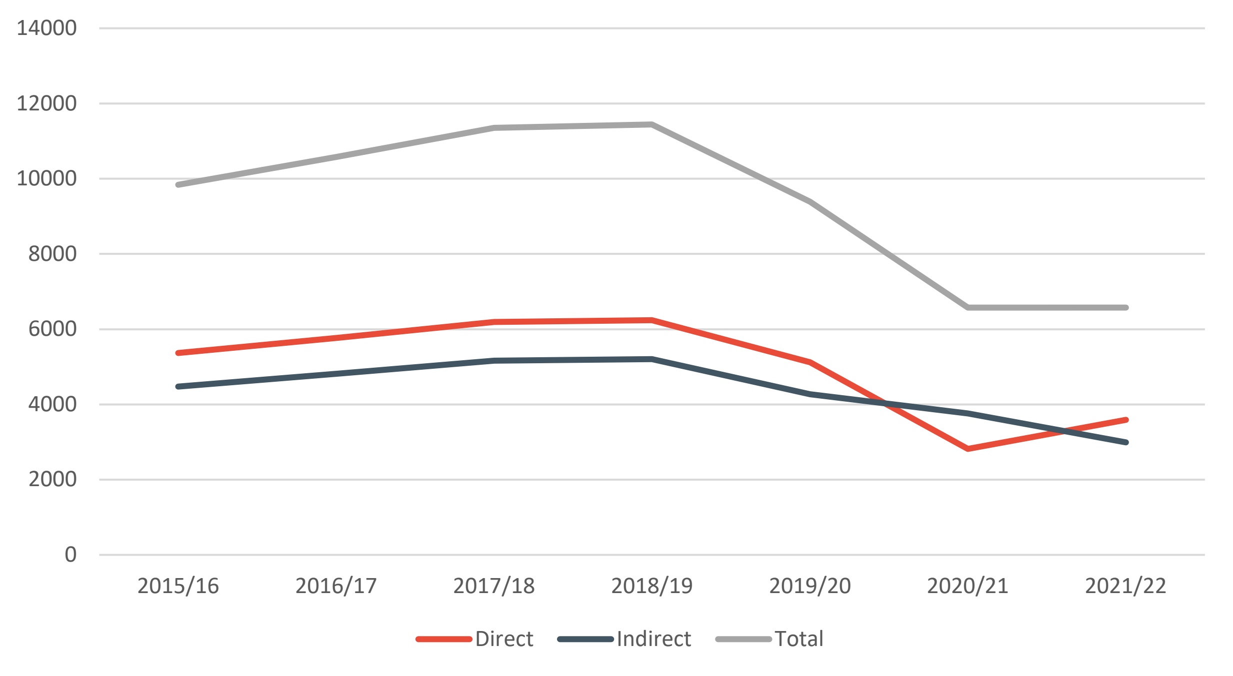
Source: Economy .id, 2021.

The analysis indicates:

- Monash has almost a quarter of its visitations for educational reasons (24%), far more than Greater Melbourne (8%), reflecting Monash's large student population attending university.
- This is also reflected in the rate of people visiting Monash to visit family and friends (39%), compared to Greater Melbourne (30%). This is likely because friends and family are visiting people studying at Monash, including from overseas given the large multicultural population.
- Monash has a far lower share of people visiting for holiday/recreational reasons (20%) than Greater Melbourne (47%).

Tourism employment over time for Monash is described at Figure 23.

Figure 23 - Tourism employment over time City of Monash



Source: Economy .id, 2021.

The analysis indicates:

- Total tourism employment decreased from a peak of approximately 11,400 in 2018/19 to approximately 6,500 in 2020/21. While some of this can be attributed to the COVID-19 pandemic (particularly from 2020 onwards), it is unclear what has instigated the downturn before the start of the pandemic.
- Direct tourism employment began to recover in 2021/22.

Note: No data is currently available regarding induced tourism jobs in Monash.

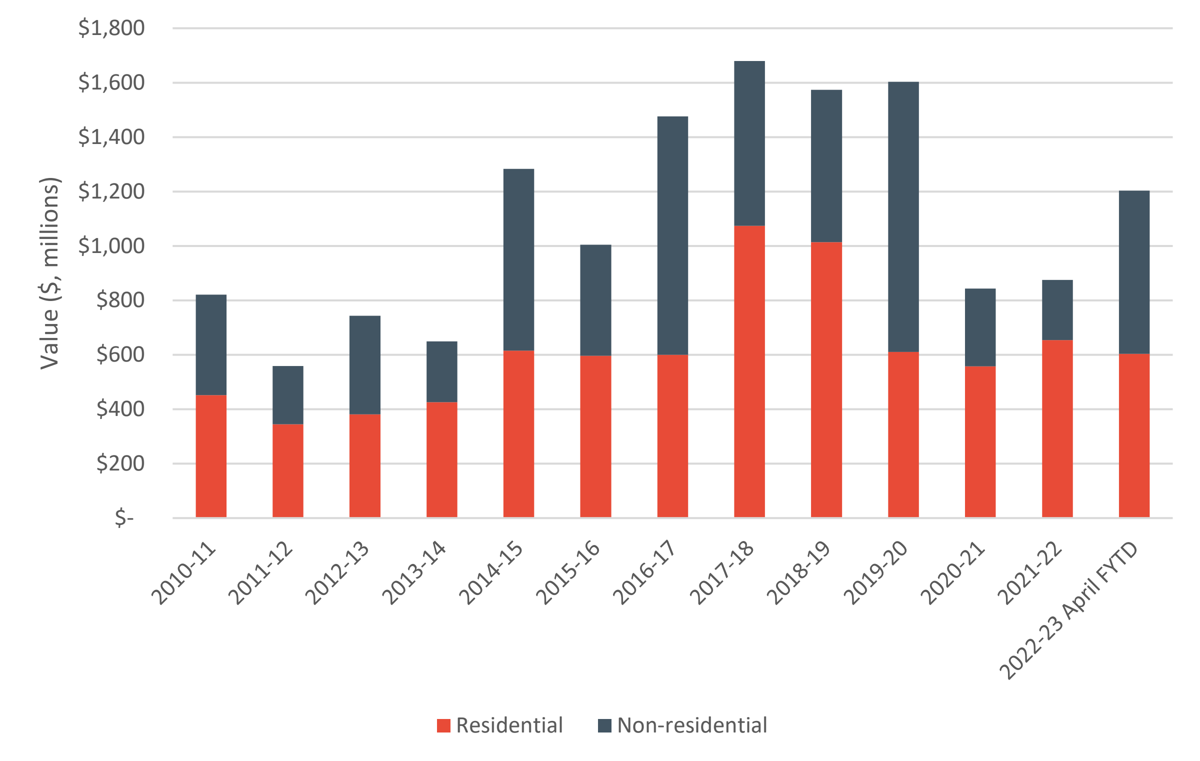
Economic implications for Monash - Tourism

- Monash should continue to attract large numbers of friends and relatives visiting international students.
- It is likely that as the MNEIC continues to expand and attract international investment and talent that Monash can increase its visitor numbers for the business community.

3.3. Building approvals in Monash

Building approvals for Monash are described at Figure 24.

Figure 24 - Building approvals for Monash over time - total value



Source: Economy .id, 2021.

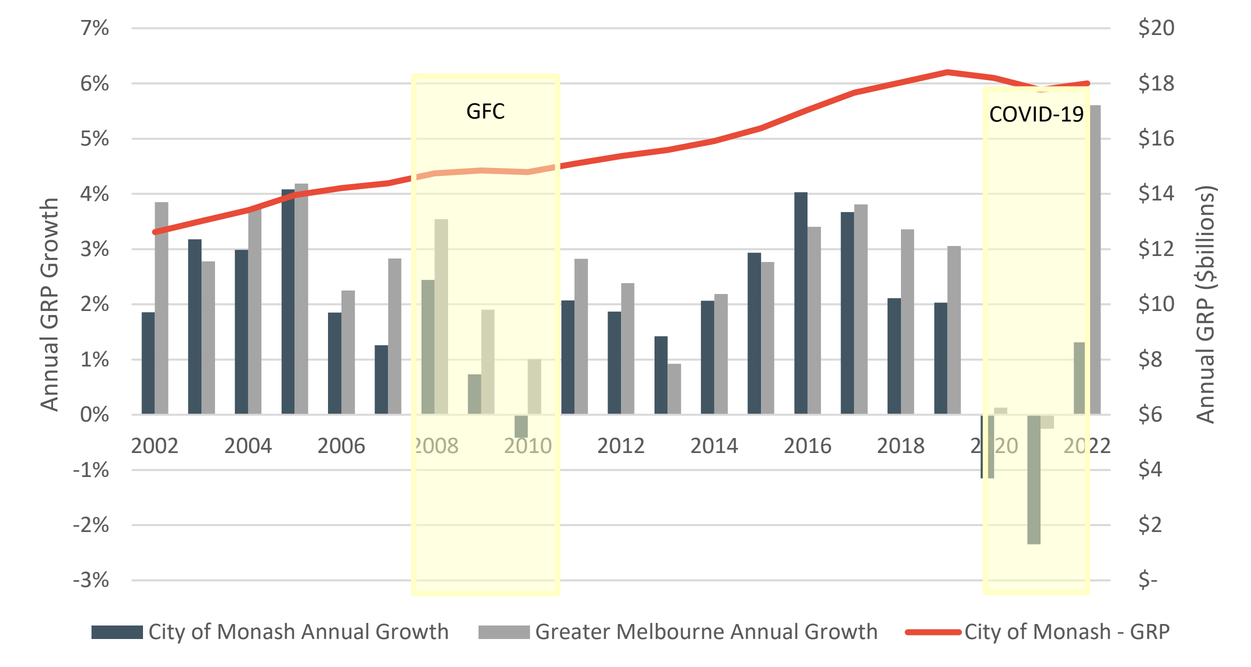
The analysis indicates:

- Total value of building approvals in 2021-22 was $875.6 million.
- Total value of building approvals for 2022-23 to April 2023 is $1.2 billion.
- Building approvals declined from a peak of $1.7 billion in 2017/18, particularly during 2021-22. This is likely to have been caused by the COVID-19 pandemic.

3.4. Gross Regional Product

Annual Gross Regional Product for Monash and Greater Melbourne is described in Figure 25.

Figure 25 - Annual Gross Regional Product – City of Monash and Greater Melbourne



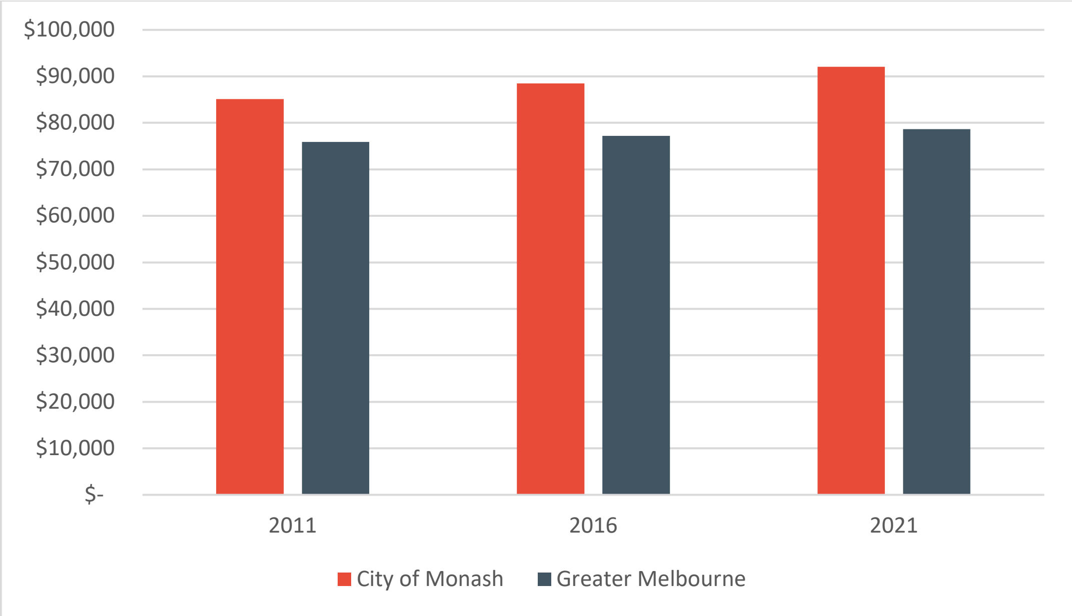
Source: Hatch 2023, based on Economy .id, 2021.

The analysis indicates:

- Monash's GRP was $18.2 billion in 2022.
- Monash's GRP has grown steadily outside of the Global Financial Crisis (GFC) and COVID-19 pandemic periods.
- Both Monash and Greater Melbourne experienced strong economic contractions during the pandemic, but have bounced back strongly in 2022 (1.3% for Monash, 6% for Greater Melbourne)
- Monash's economy grew more slowly than Greater Melbourne's until 2015, after which point it has grown more rapidly than Greater Melbourne (apart from during the GFC and pandemic). This marks a substantial achievement for Monash and suggests a major economic transformation took place during this period.

GRP per capita for Monash and Greater Melbourne is described at Figure 26.

Figure 26 - GRP per capita City of Monash and Greater Melbourne over time



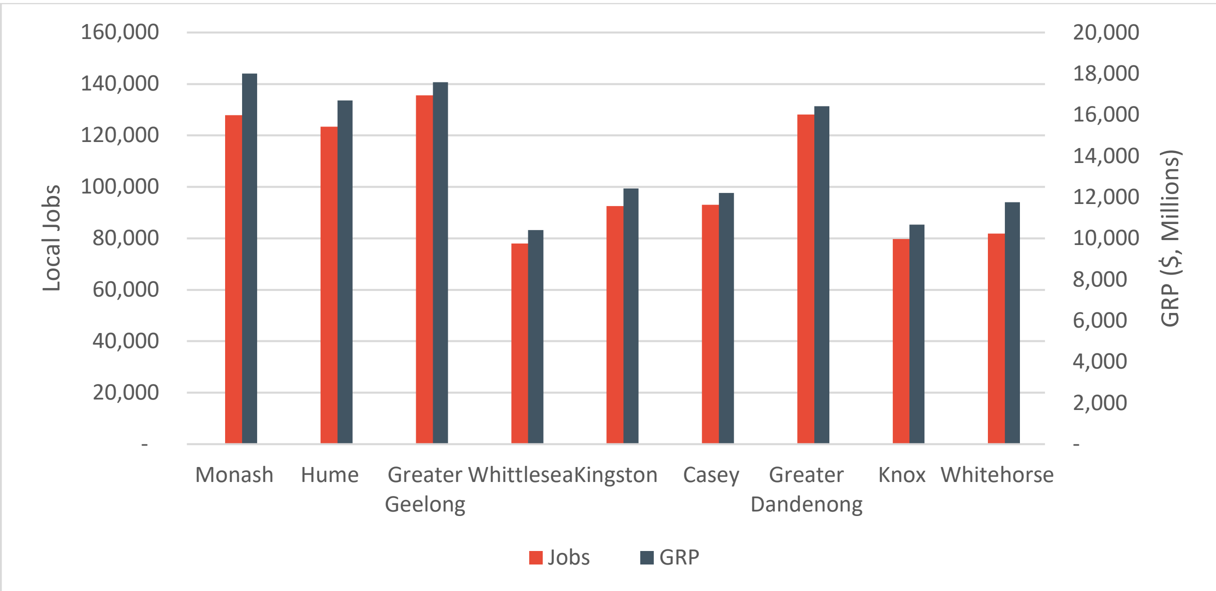
Source: Hatch 2023, based on Economy .id, 2021.

The analysis indicates that between 2011 and 2021:

- Monash's per capita GRP increased from approximately $85,000 per person to $92,000 per person, compared to Greater Melbourne which did not significantly increase over the same period (approximately $76,000 to $78,000).
- This is potentially as a result of the major economic transformation alluded to in Figure 27.

Local Jobs and GRP for selected Melbourne LGA's is described at Figure 27.

Figure 27 - Local Jobs and GRP for selected Melbourne LGA's, 2021/22

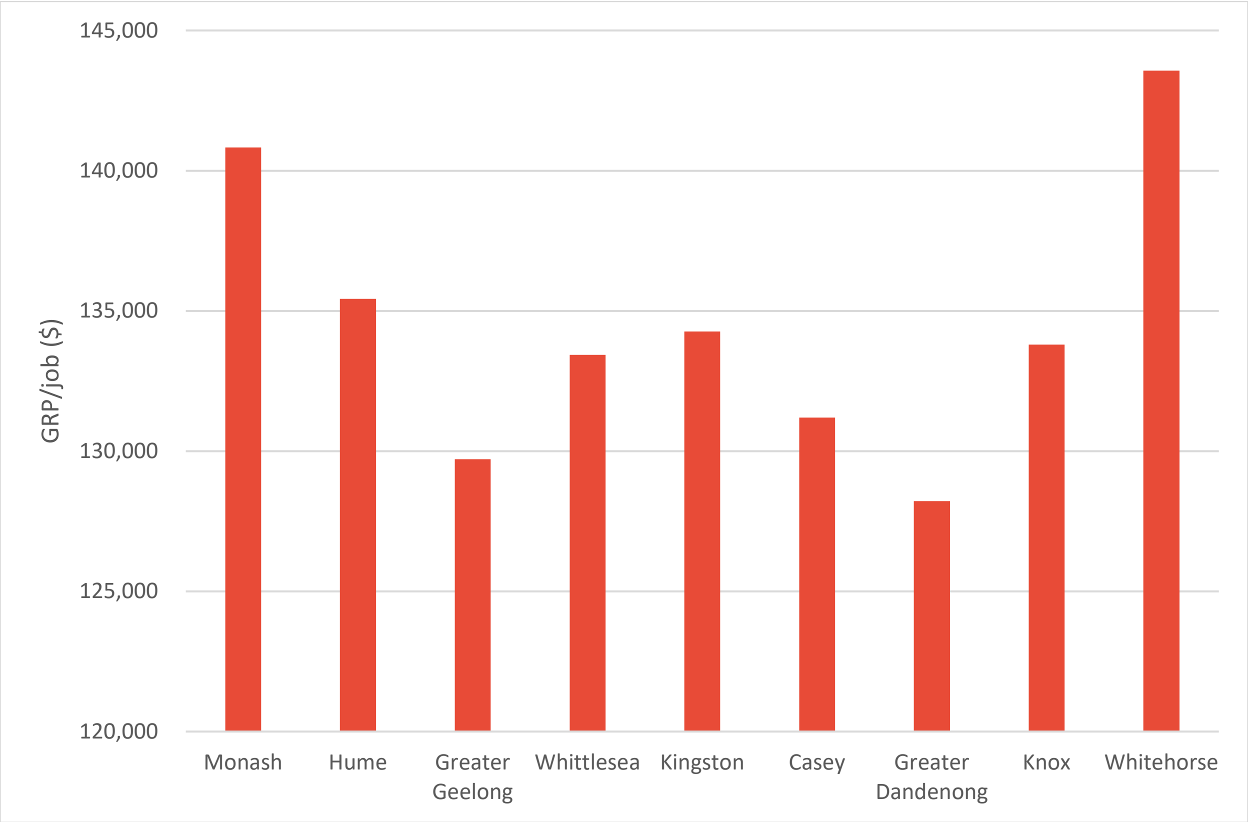


Source: Hatch 2023, based on Economy .id, 2021.

The analysis indicates that Monash has the highest number of jobs (127,000) and highest GRP ($18.2 billion) of the selected LGAs.

GRP per local jobs for selected Melbourne LGAs is described at Figure 28.

Figure 28 - GRP per local jobs for selected Melbourne LGAs, 2021/22



Source: Hatch 2023, based on Economy .id, 2021.

The analysis indicates that:

- Monash's GRP per local job is $140,830 per job.
- This is the second highest GRP per local job of its neighbouring or comparable LGAs, after Whitehorse ($143,564 per job)

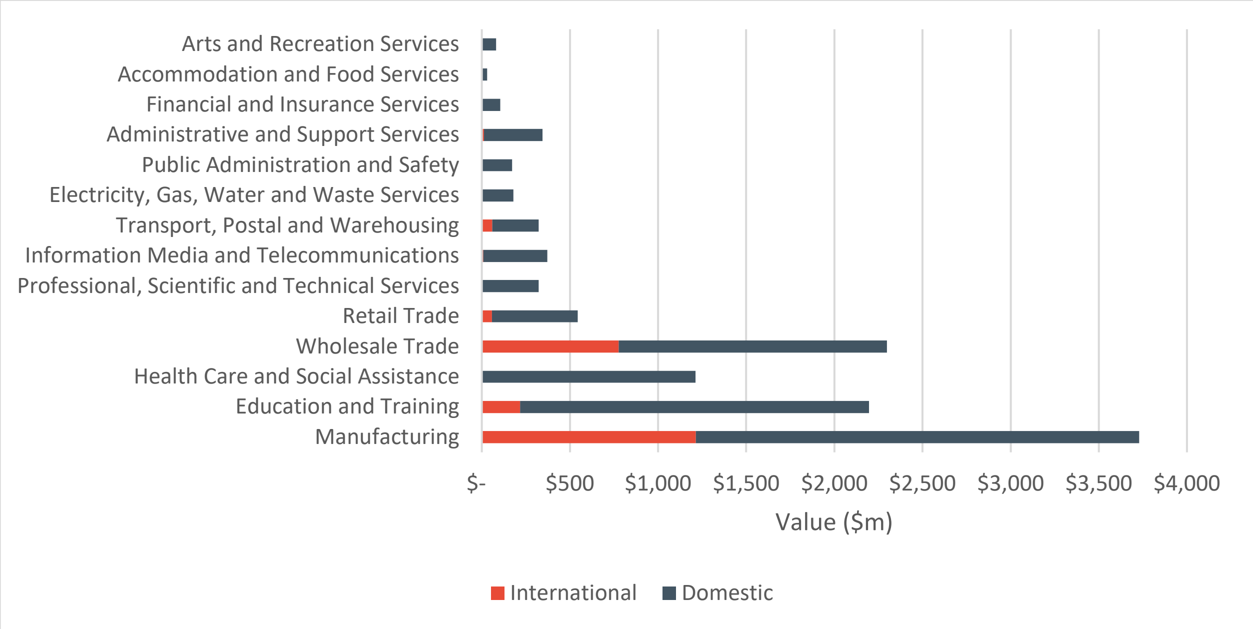
Economic implications for Monash – Gross Regional Product

- Monash's high GRP per capita indicates that the area creates higher levels of economic activity than Greater Melbourne, most likely because of the MNEIC's ability to create new specialisations and exports.
- Monash's high GRP per local job indicates it hosts large numbers of high productivity jobs.
- Continuing to support the MNEIC will likely increase GRP per capita still further.

3.5. Exports

Monash’s exports by industry and destination in 2020/21 is described at Figure 29.

Figure 29 – Export value by industry for City of Monash 2020/21



Source: Economy .id, 2023.

The analysis indicates:

- Monash had a total of approximately $12 billion in exports (international and domestic) in 2021/22.
- Monash’s largest export industries in 2021/22 were Manufacturing ($3.7 billion), Wholesale Trade ($2.3 billion) and Education and Training ($2.2 billion).
- The majority of Monash’s exports in all sectors were for the domestic market.

Top 3 Domestic Export Industries	**Top 3 International Export Industries**
Manufacturing - $2.5 billion Education and training - $ 2.0 billion Wholesale trade - $ 1.5 billion	Manufacturing - $1.2 billion Wholesale trade - $0.7 billion Education and training - $0.2 billion

Monash's six highest export products by value are at Table 5

Table 5 - City of Monash's exports by product

Industry sub-class	Total Exports (2021-22) ($m)	% Share of Total Monash Exports	5 year industry growth rate
Tertiary Education	1,992.7	16.6%	-2%
Machinery and Equipment Wholesaling	988.3	8.2%	-5%
Basic Chemical and Chemical Product Manufacturing	771.9	6.4%	-9%
Polymer Product and Rubber Product Manufacturing	723.3	6%	17%
Machinery and Equipment Manufacturing	695	5.8%	8%
Hospitals (health services)	693.3	5.8%	2%

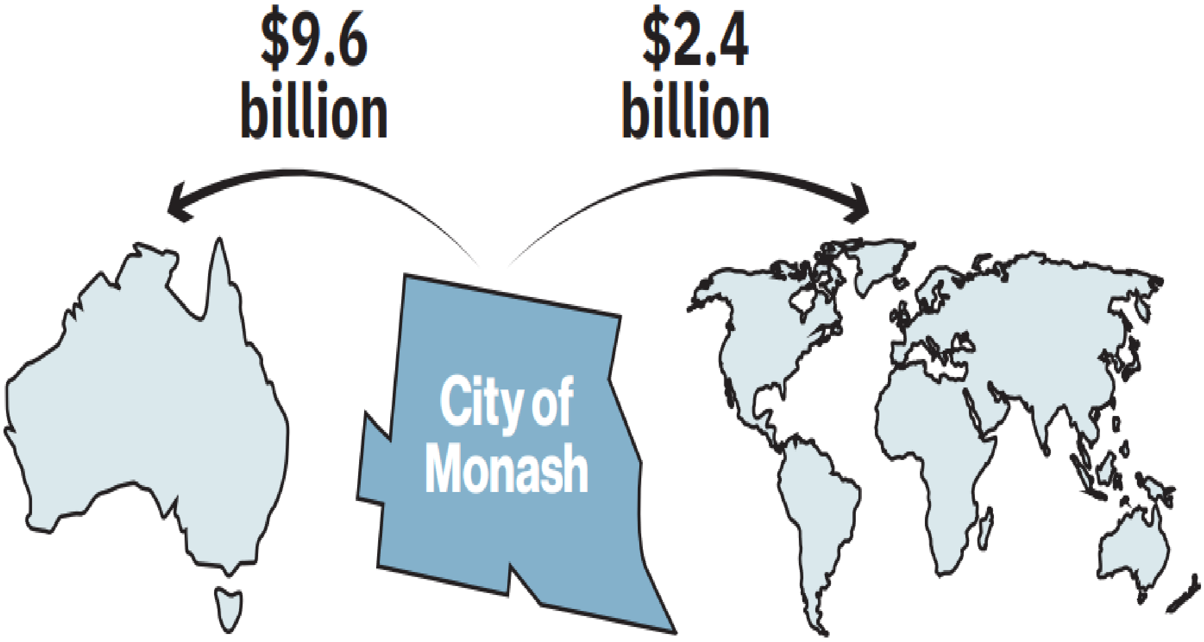
Source: Economy .id, 2021.

The analysis indicates:

- Tertiary education is Monash's biggest export at $1.9 billion in 2021/22, representing 16.6% of total exports.
- Tertiary education declined by 2% during the last five years, due to the COVID-19 pandemic severely impacting international student numbers.
- Other significant export industries including Polymer Product and Rubber Product Manufacturing, Machinery and Equipment Manufacturing, and Hospitals (health services) experienced positive growth during the last five years despite the pandemic.

Economic implications for Monash – Exports

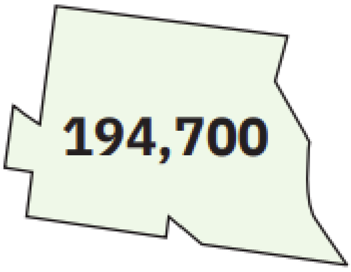
- Monash's exports were severely impacted by the pandemic but are well placed to recover, particularly for international education.
- Going forward, there is potential for innovations and specialisations emanating from the MNEIC to produce new exports that will bring significant value to Monash.


$9.6 billion
$2.4 billion
City of Monash

4. Socioeconomic profiling

4.1. Population and demographics

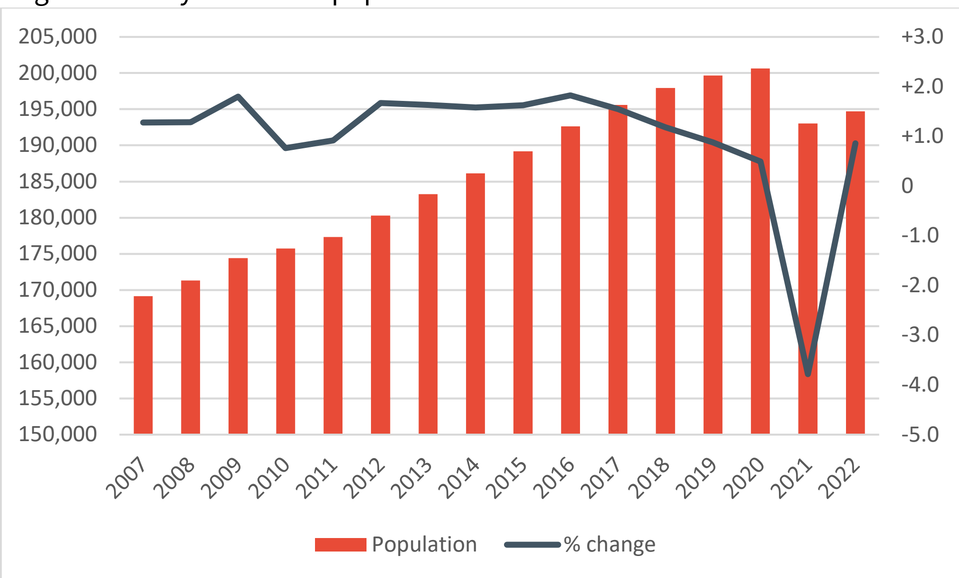
4.1.1. Population



0.9%
Population Growth Rate 2021-2022

Monash's resident population is described at Figure 30.

Figure 30 - City of Monash population over time



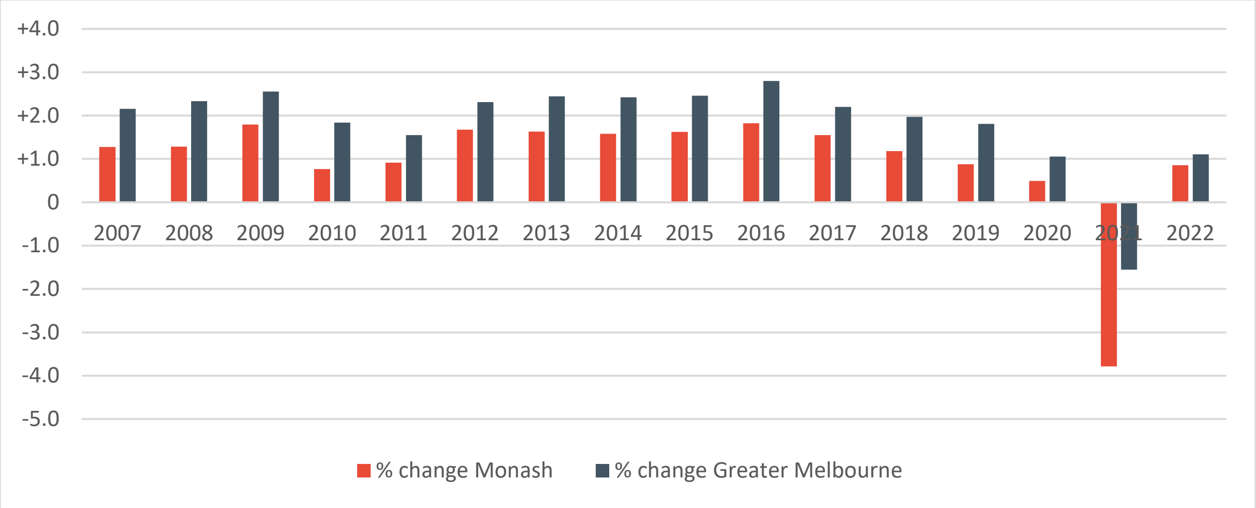
Source: Forecast ID 2022.

The analysis indicates:

- Monash's population in 2022 was approximately 195,000.
- Monash's population steadily increased over time until interrupted by the COVID-19 pandemic from 2022-21, before rebounding strongly in 2022.
- Monash's rate of population increase declined between 2016 and 2020 (i.e. before the pandemic).

The rate of population change over time for Monash and Greater Melbourne is at Figure 31.

Figure 31 - Rate of population change over time for City of Monash and Greater Melbourne



Source: Forecast ID 2023.

The analysis indicates:

- Monash's growth rate from 2021 to 2022 was 0.9%, compared to 1.1% for Greater Melbourne, noting both growth rates were impacted by the pandemic.
- Monash's population has grown more slowly over time than Greater Melbourne.
- This is likely because Monash is an already developed area, whereas Greater Melbourne includes areas of greenfield expansion that allow for more rapid population growth.
- Monash's rate of population change was greater during the pandemic than Greater Melbourne's.

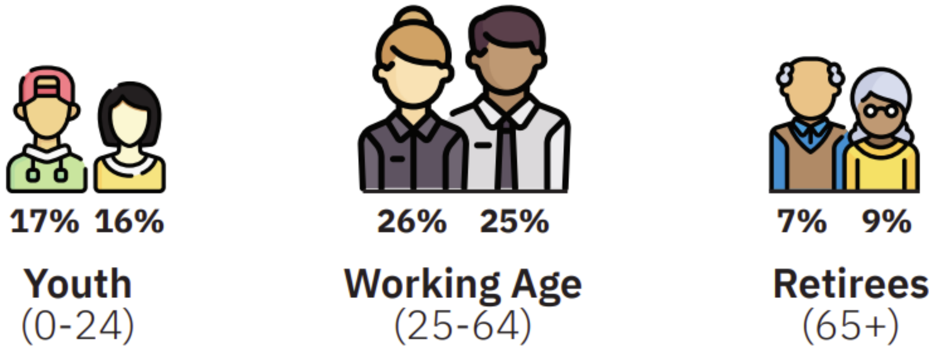
Population forecasts

It is estimated that Monash's population could grow from its current 195,000 to approximately 250,000 by 2041, a growth rate of approximately 22%.[11] However, these forecasts do not include the highly significant population growth forecast from the development of SRL East, which are anticipated to add 72,500 additional people by 2056 (see Section 2.3.3), noting that only a portion of these numbers would be residing in Monash by 2041.[12]

[11] Forecast ID, website, last access June 2023.

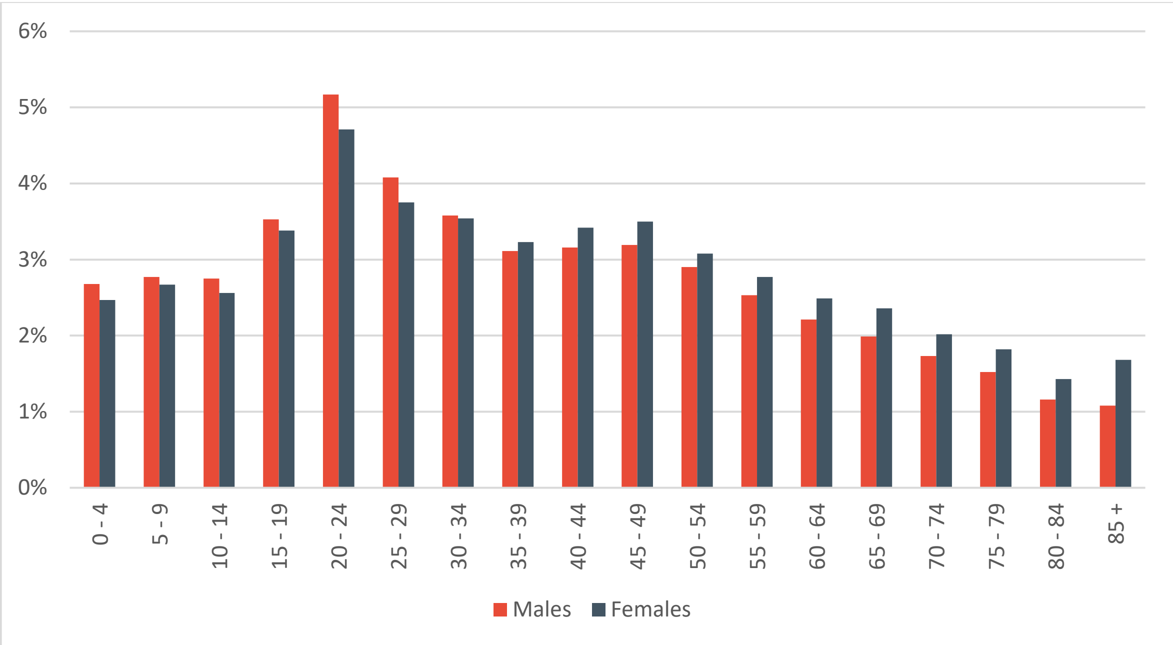
[12] Please note Forecast ID are currently updating its population forecasts to include the potential growth from SRL East, and that this data will be included in this profile when available.

4.1.2. Age demographics



The age profile by sex for Monash is described at Figure 32.

Figure 32 - Age profile by sex - City of Monash, 2021



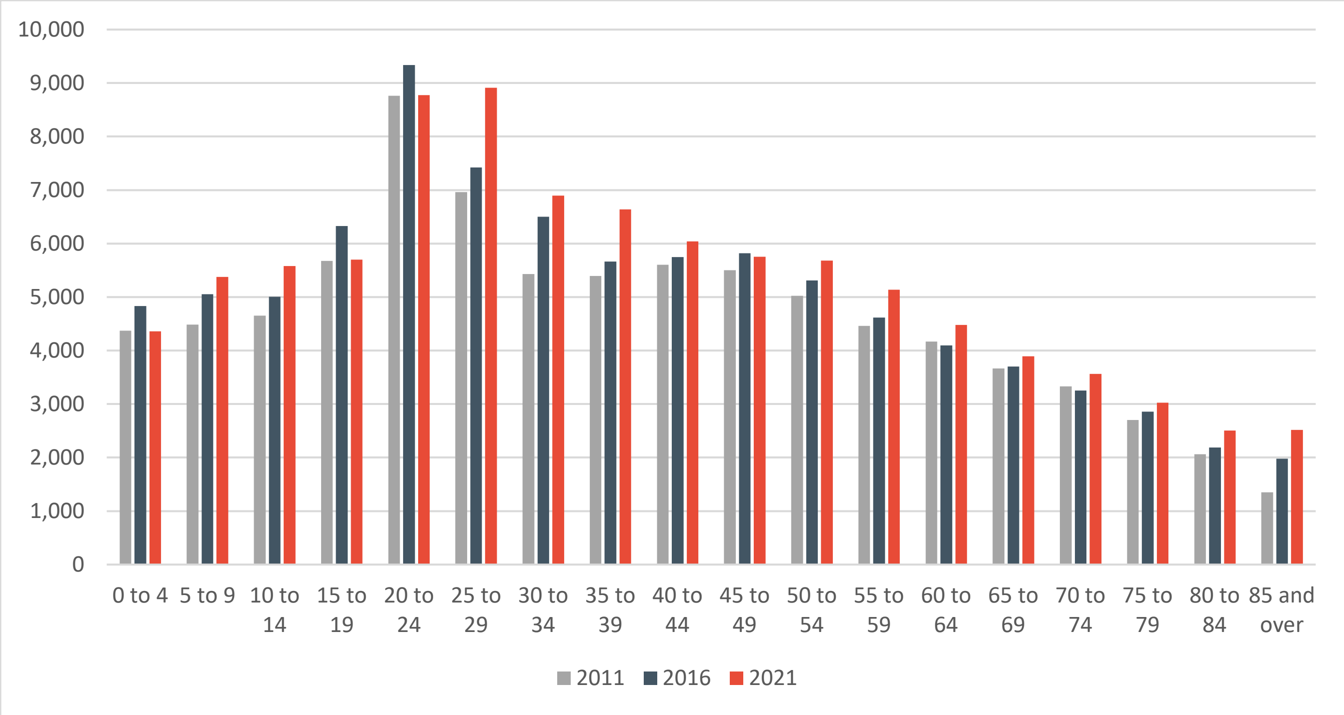
Source: Profile .id, 2021.

The analysis indicates that:

- Monash's highest represented age profiles are 5.1% for males aged 20-24, and 4.6% for females aged 20-24.
- Monash's overall population is predominantly young (particularly in the 20-24 age bracket), reflecting its large student population.
- There are more young males than young females in Monash (aged 34 and below), and more older females than older males (aged 35 and above).

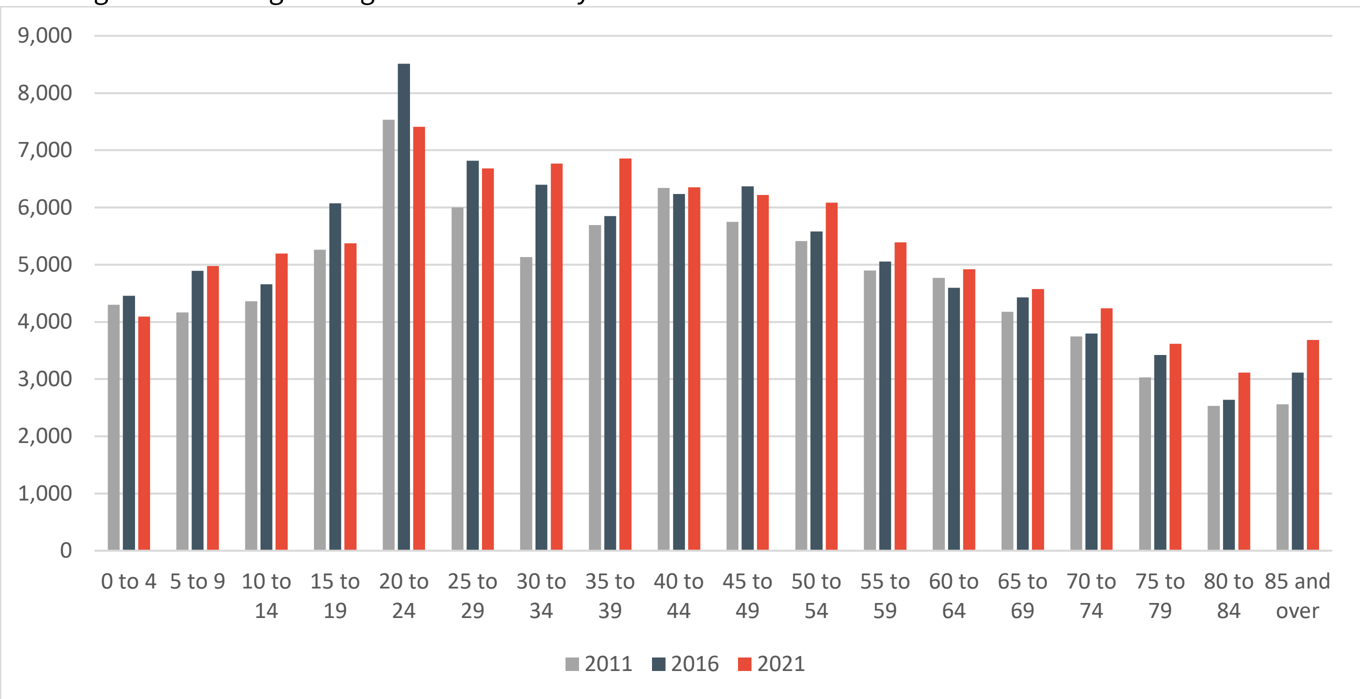
Changes to Monash's age structure for males is described at Figure 33, and for females is described at Figure 34.

Figure 33 - Changes in age structure in City of Monash over time - males



Source: Hatch 2023, based on Profile .id, 2021.

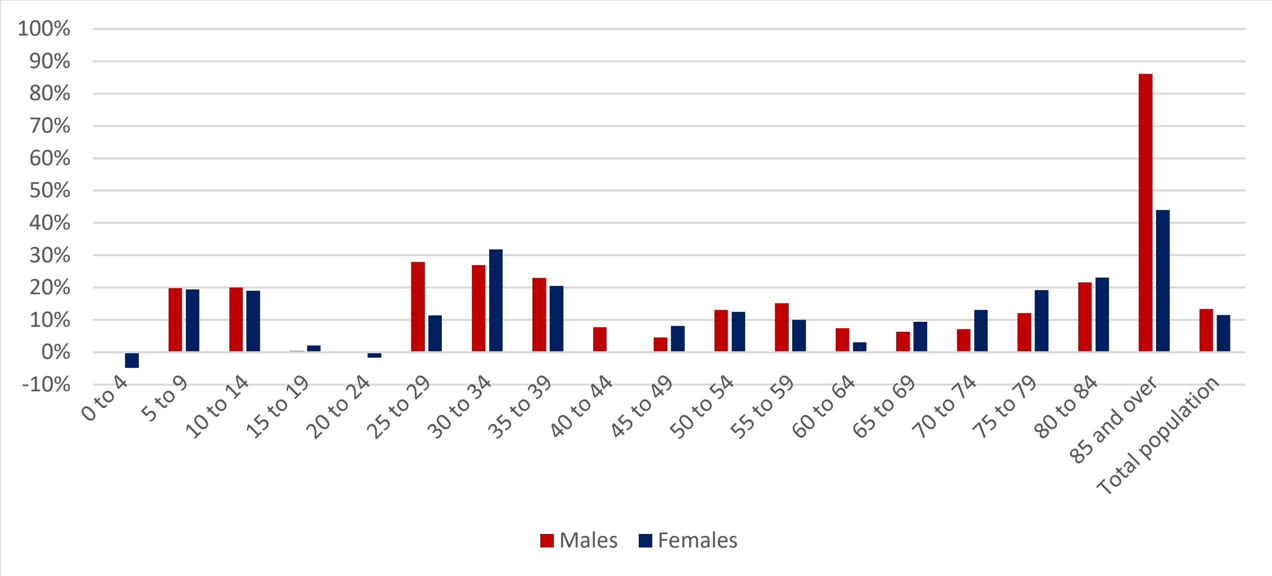
Figure 34 - Changes in age structure in City of Monash over time - females



Source: Hatch 2023, based on Profile .id, 2021.

Change in age profile by sex between 2011-2021 in Monash is described at Figure 35.

Figure 35 - Age profile by sex - percentage change from 2011-2021 - City of Monash



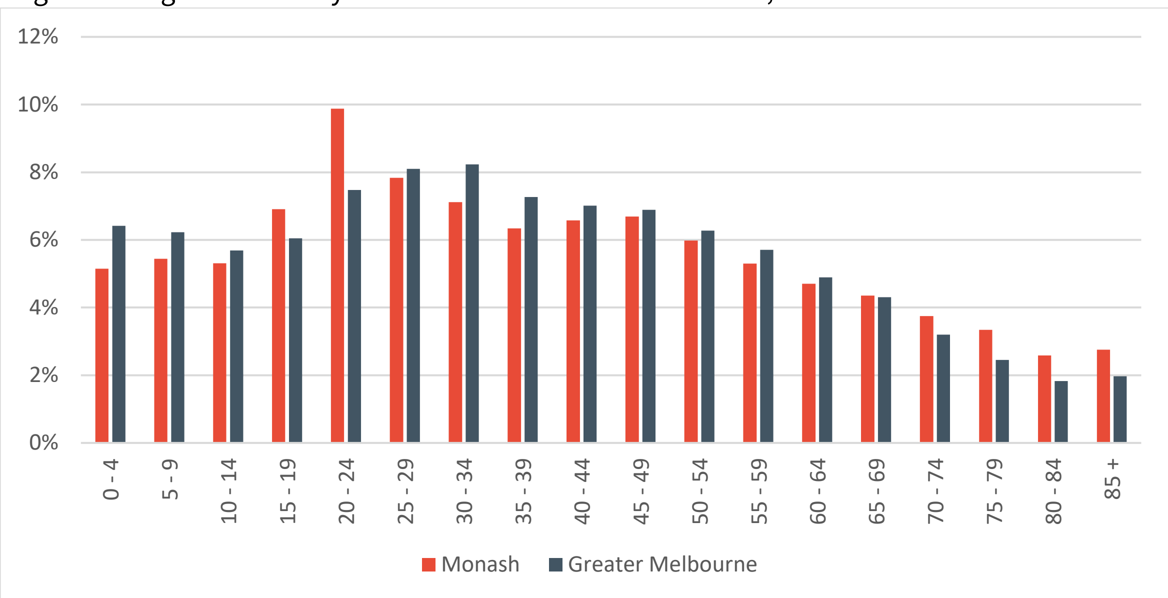
Source: Hatch analysis based on Profile ID, 2023.

The analysis indicates that between 2011 and 2021:

- Monash had extremely large increase in its population aged 85 and older, for both men (86.1%) and women (44%).
- The share of people aged between 15 and 24 have remained broadly unchanged.
- The share of men aged 25-29 (28%) increased considerably more rapidly than women (11.4%).

The age profile for Monash and Greater Melbourne is described at Figure 36.

Figure 36 - Age Profile - City of Monash and Greater Melbourne, 2021



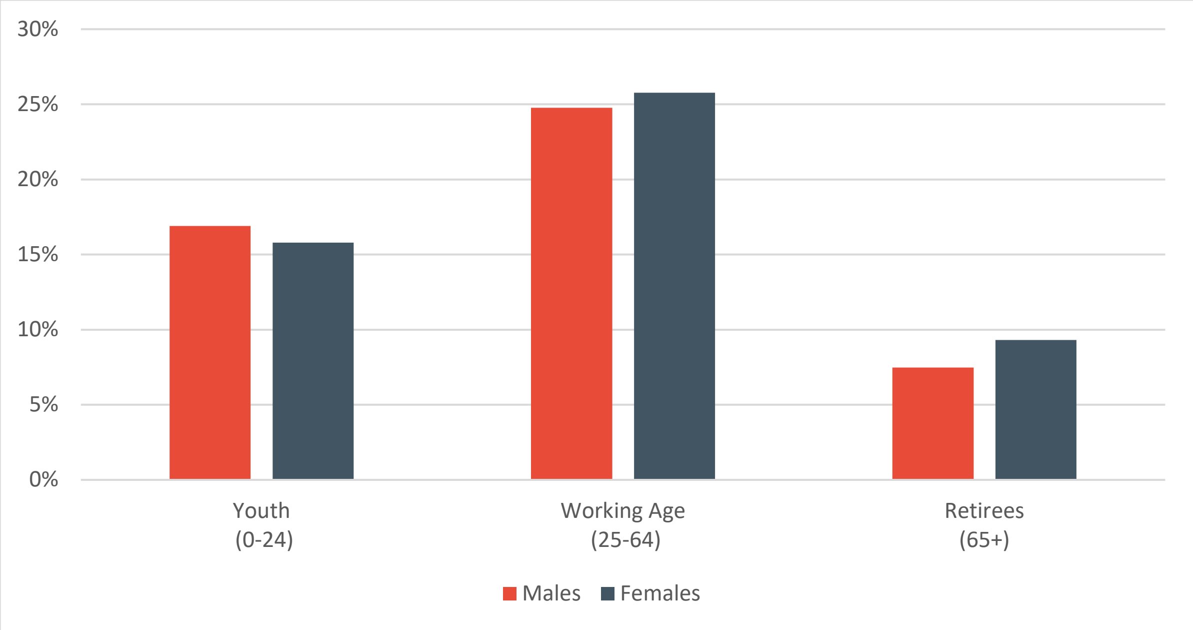
Source: Profile .id, 2021.

The analysis indicates that:

- Monash's share of population in the 20-24 age bracket (9.9%) is substantially higher than Greater Melbourne's (7.3%), reflecting its large student population.
- Monash rate of population for ages 15 and under is less than Greater Melbourne.
- Monash rate of population for ages 25 to 64 is less than Greater Melbourne.

Resident population age cohorts by sex for Monash are described at Figure 37.

Figure 37 – Distribution of population age cohorts by sex - City of Monash, 2021



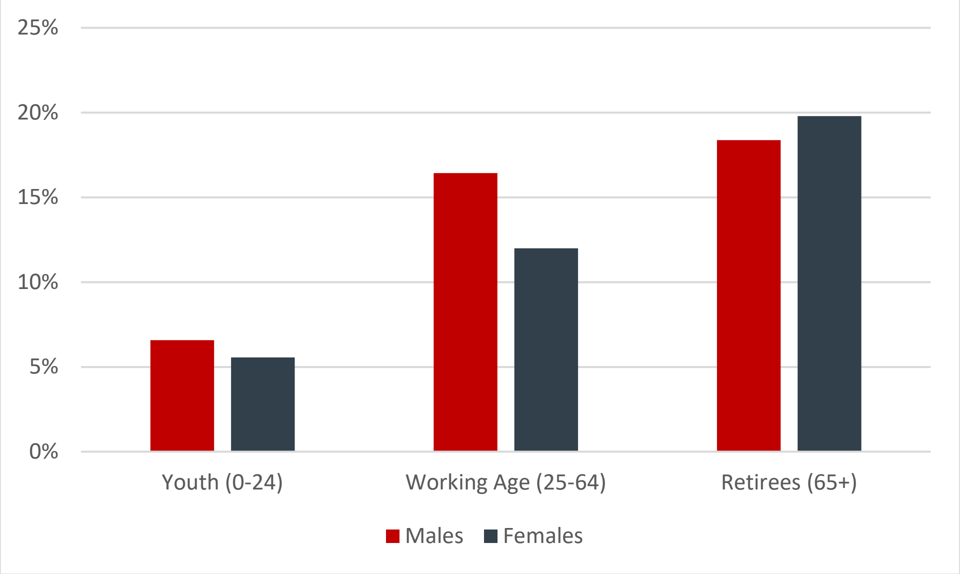
Source: Hatch analysis based on Profile .id, 2021.

The analysis indicates:

- Males and females have broadly similar distribution across the three age cohorts.
- Marginally more males are present than females in the youth (17%, 16%) cohort, while marginally more females than males are present in the working aged cohort (26%, 25%).
- More females (9%) are present than males (7%) in the retirees cohort.

Growth in resident population age cohorts by sex between 2011 and 2021 in Monash is described at Figure 38.

Figure 38 - Growth in population age cohorts by sex – 2011-2021 - City of Monash



Source: Hatch analysis based on Profile .id, 2021.

The analysis indicates that in Monash between 2011 and 2021:

- The majority of population growth by age cohort was for retirees (19.8% for females, 18.4% for males).
- The population of working age males (16.4%) grew considerably more than females (12%).

Resident population age cohorts for Monash and Greater Melbourne is described at Figure 39.

Figure 39 – Population age cohorts - City of Monash and Greater Melbourne, 2021

Source: Profile .id, 2021.

The analysis indicates:

- Monash has a smaller ratio of people in the working age cohort (51%) than Greater Melbourne (54%).
- Monash has a larger ratio of people in the retiree cohort (17%) than Greater Melbourne (14%).

Economic implications for Monash - Population and demographics

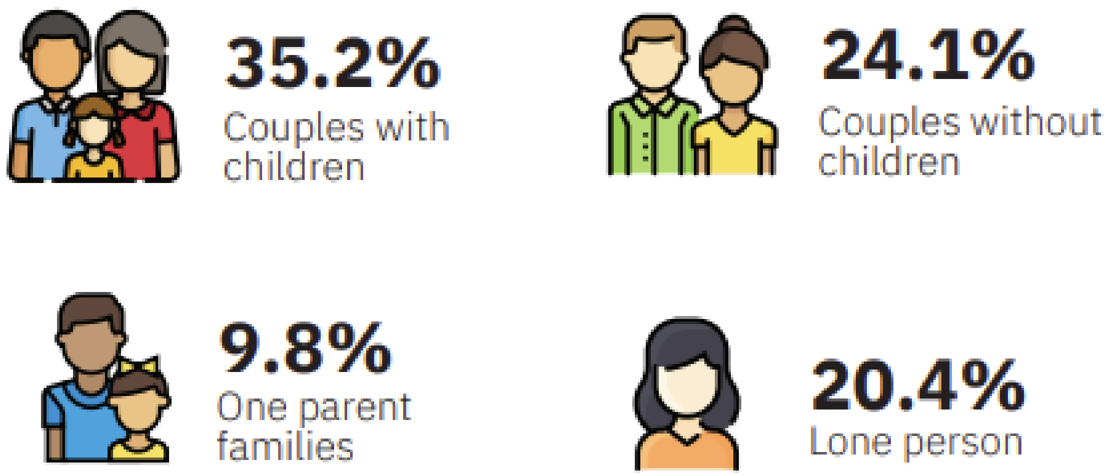
Key trends Monash characteristics and trends:

- Strong student population.
- Large growth in the proportion of men aged 25-29.
- Large growth in proportion of retirees, especially men 85 and older.

Implications:

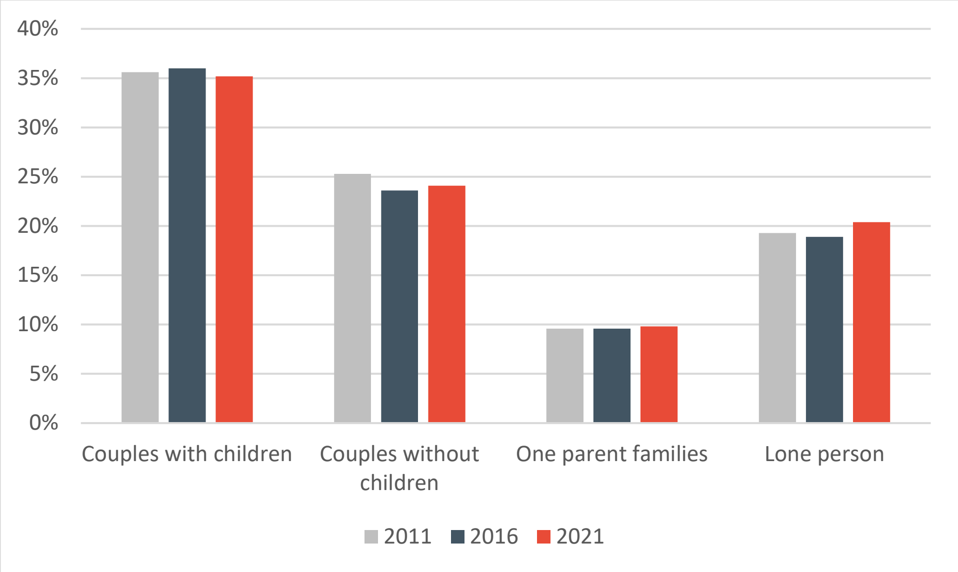
- Monash can develop programs to support its ageing population, and its increasing student and young adult population.
- High number of working age people suggests the importance of creating local jobs to ensure Monash does not become a “dormitory suburb” where people leave during business hours to work elsewhere.

4.1.3. Family structures



Monash's family structures over time are described at Figure 40.

Figure 40 - Family structures in City of Monash over time



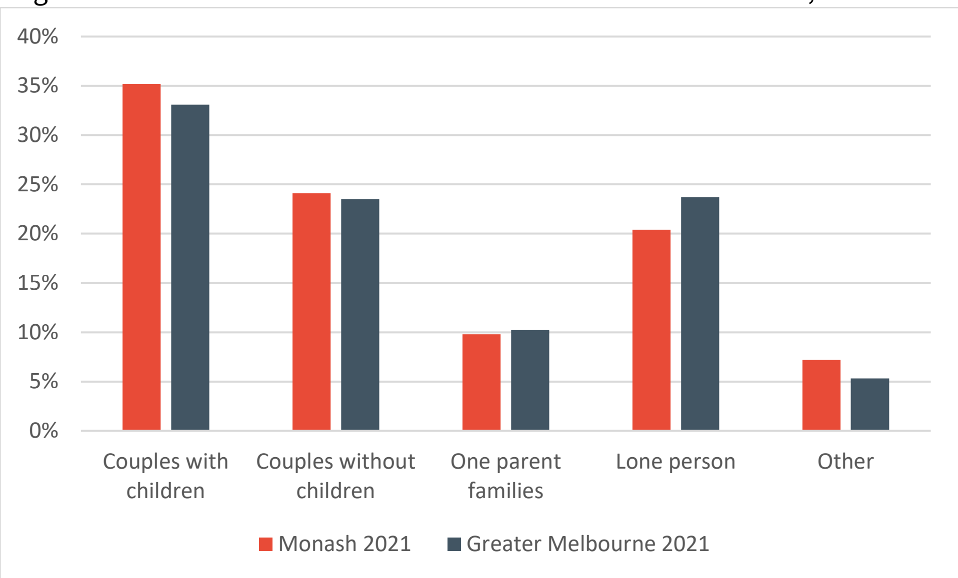
Source: Hatch 2023, based on Profile .id, 2021.

The analysis indicates that between 2011 and 2021:

- Household structures in Monash primarily consist of couples (with or without children), totalling 59% of all categories in 2021.
- Ratios of household structures in Monash did not change substantially from 2011 to 2021.
- It is unclear why the share of households classified as couples without children, and lone persons, declined from 2011 to 2016, but then rose from 2016 to 2021.

Household structures for Monash and Greater Melbourne are described at Figure 41.

Figure 41 - Household structure – Monash and Greater Melbourne, 2021



Source: Profile .id, 2021.

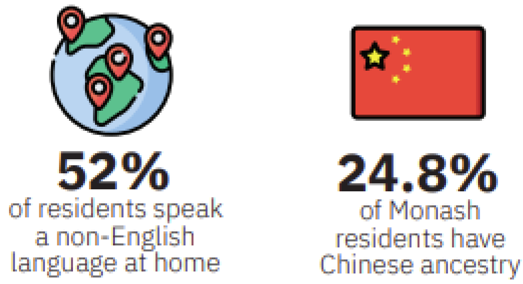
The analysis indicates:

- Monash has marginally greater share of couples without children, and couples with children, than Greater Melbourne.
- Greater Melbourne has a greater share of lone persons (23.7%) than Monash (20.4%).

Economic implications for Monash – Family structures

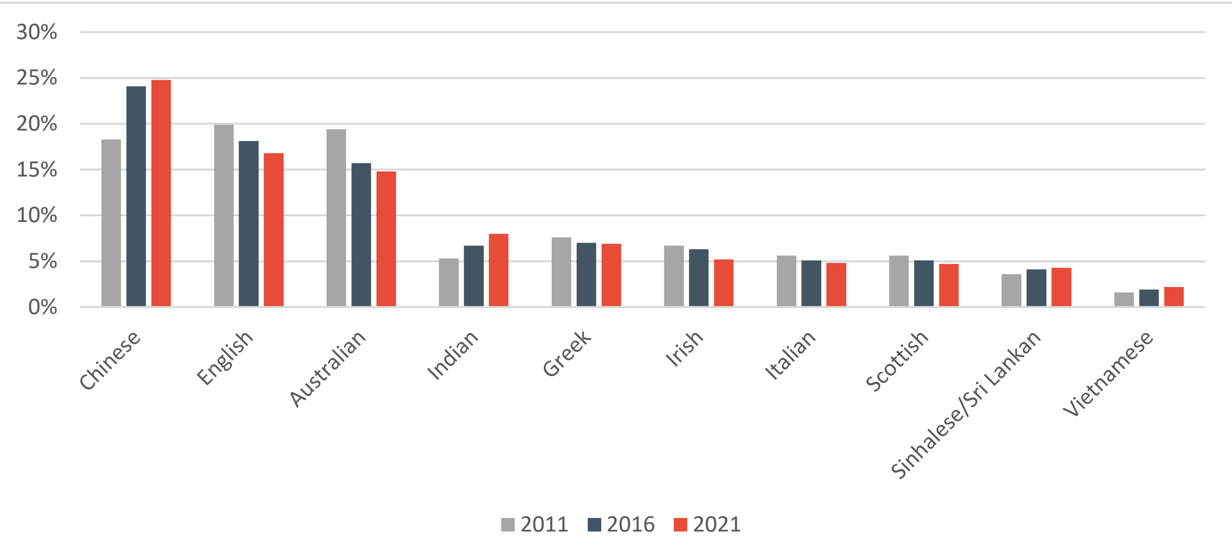
- Availability of childcare services should be monitored for increasing demand, as more people move to Monash after the COVID-19 pandemic.
- Large numbers of couples are likely to impact Monash's service industries (noting the different demands couples are likely to have to the student population, for example). This potentially includes restaurants, event planning, and leisure and entertainment services.

4.1.4. Diversity



Ancestry in Monash over time is described at Figure 42. Note that each person may list up to two ancestry groups when responding to the Census.

Figure 42 - Ancestry - City of Monash residents over time



Source: Hatch 2023, based on Profile .id, 2021.

The analysis indicates:

- Chinese is the most common ancestry group in Monash (24.8%), followed by English (16.8%) and Australian (14.8%).
- Chinese ancestry has grown substantially in Monash, from 18.3% in 2011 to 24.8% in 2021.
- The Australian ancestry group declined from 19.4% in 2011 to 14.8% in 2021.

Ancestry in Monash and Greater Melbourne is described at Figure 43.

Figure 43 - Ancestry - City of Monash and Greater Melbourne, 2021

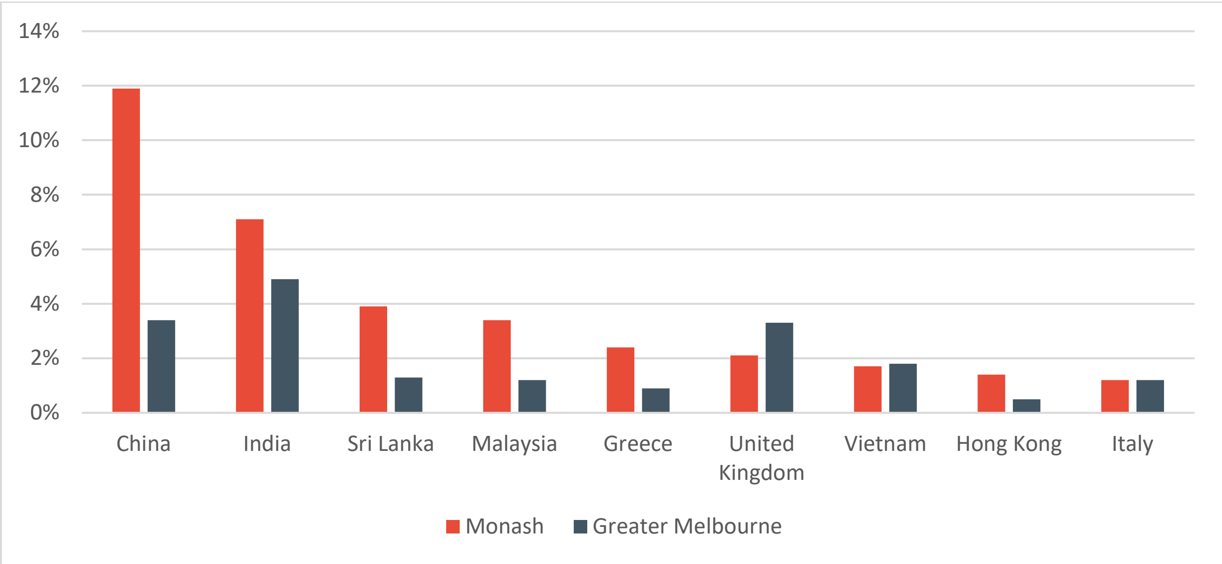
Source: Profile .id, 2021.

The analysis indicates:

- Monash has substantially higher rates of people with Chinese ancestry (24.8%) than Greater Melbourne (8.3%).
- Monash has lower rates of people with English (16.8%) and Australian (14.8%) ancestry than Greater Melbourne (25.6% and 23.4% respectively).

Resident birthplaces for people born outside of Australia for Monash and Greater Melbourne is described at Figure 44.

Figure 44 - Resident birthplace for people born outside of Australia - City of Monash and Greater Melbourne



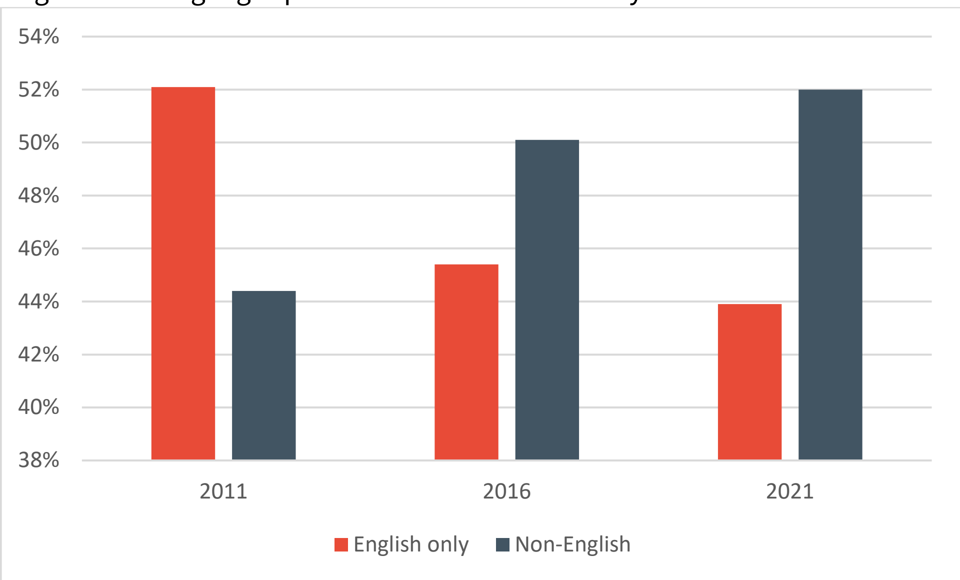
Source: Profile .id 2021.

The analysis indicates:

- Monash has substantially higher rates of people born overseas than Greater Melbourne, including China, India, Sri Lanka, Malaysia, Greece, and Hong Kong.
- Monash has lower numbers of people born in the United Kingdom than Greater Melbourne.

Language spoken at home in Monash over time is described at Figure 45.

Figure 45 - Language spoke at home over time - City of Monash



Source: Hatch 2023, based on Profile .id, 2023.

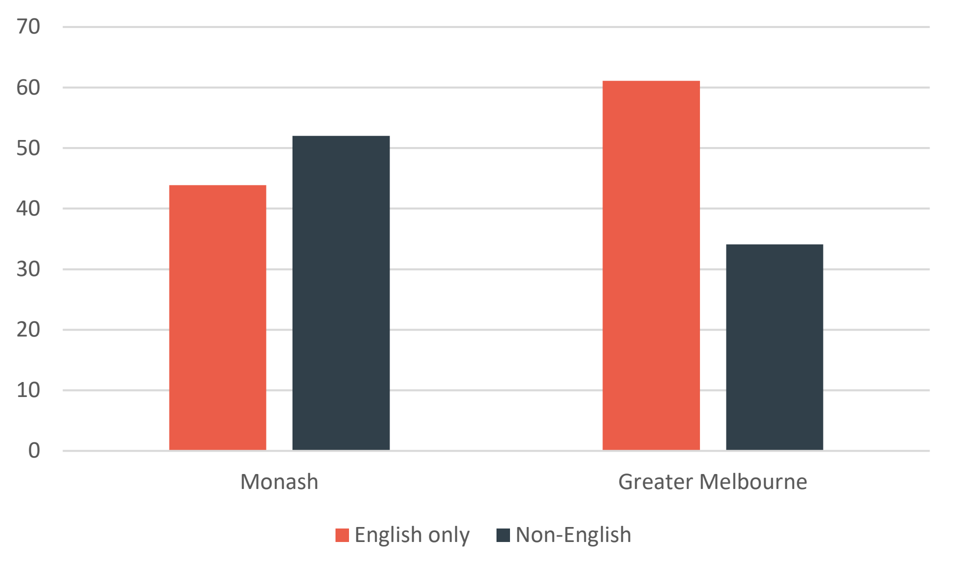
The analysis indicates:

- 52% of people spoke English at home in 2011, declining to 43.9% in 2021.

- People speaking a non-English language at home rose from 44.4% in 2011 to 52% in 2021 i.e. more than half of Monash residents do not speak English at home.

Language spoken at home for Monash and Greater Melbourne is described at Figure 46.

Figure 46 - Language spoken at home over time - City of Monash and Greater Melbourne, 2021



Source: Hatch analysis based on Profile .id, 2021.

The analysis indicates that Monash has a considerably higher rate of people who do not have English as their first language (52%) than Greater Melbourne (34.1%).

Economic implications for Monash - Diversity

- Monash has a very diverse population, with strong links to economically important nations such as China and India.
- Monash can potentially assist local residents and its business community by communicating in the non-English languages predominantly used throughout the City.

4.1.5. Migration

Net migration for Monash is described at Table 6. Please note that data is not available on people migrating from 2011 to 2016, or from Monash to overseas destinations from 2016-2021.

Table 6 – Net migration for City of Monash 2016-2021

Source	Net Migration
Intrastate	-9,679
Interstate	+ 165
Overseas (inflow only)	+ 21,576

Source: Profile .id, 2021.

The analysis indicates:

- Net intrastate migration resulted in approximately 9,600 people leaving Monash to live in other parts of Victoria, potentially reflecting trends of people moving from city to rural areas during the COVID-19 pandemic.
- Net interstate migration resulted in approximately 165 more people living in Monash.
- Overseas migration resulted in approximately 21,500 people moving to Monash, noting it is unclear how many people left for overseas from Monash during this period.

Economic implications for Monash - Migration

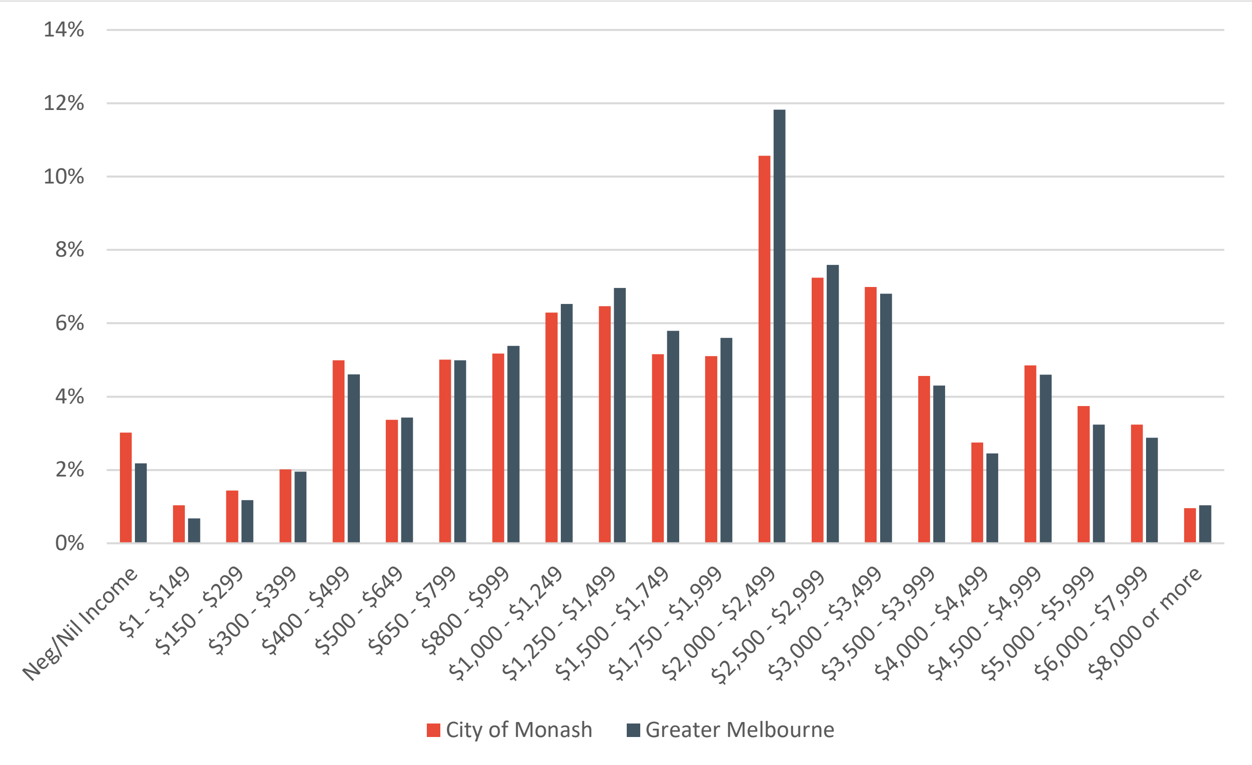
- Monash's net intrastate outflows will likely be countered over time by inflows from both intrastate and overseas, and will require careful monitoring to ensure Monash can tailor its programs accordingly to create maximum economic gain.

4.2. Income and socioeconomic indicators

4.2.1. Income

Weekly household income distribution for Monash and Greater Melbourne is described at Figure 47. Please note that, as per ABS Census data, the income distribution ranges are not constant across the distribution. For example, the $2,000 - $2,499 bracket includes a larger range of income than the preceding bracket of $1,750 - $1,999.

Figure 47 - Weekly household income distribution - City of Monash and Greater Melbourne, 2021



Source: Profile.id, 2021.

The analysis indicates:

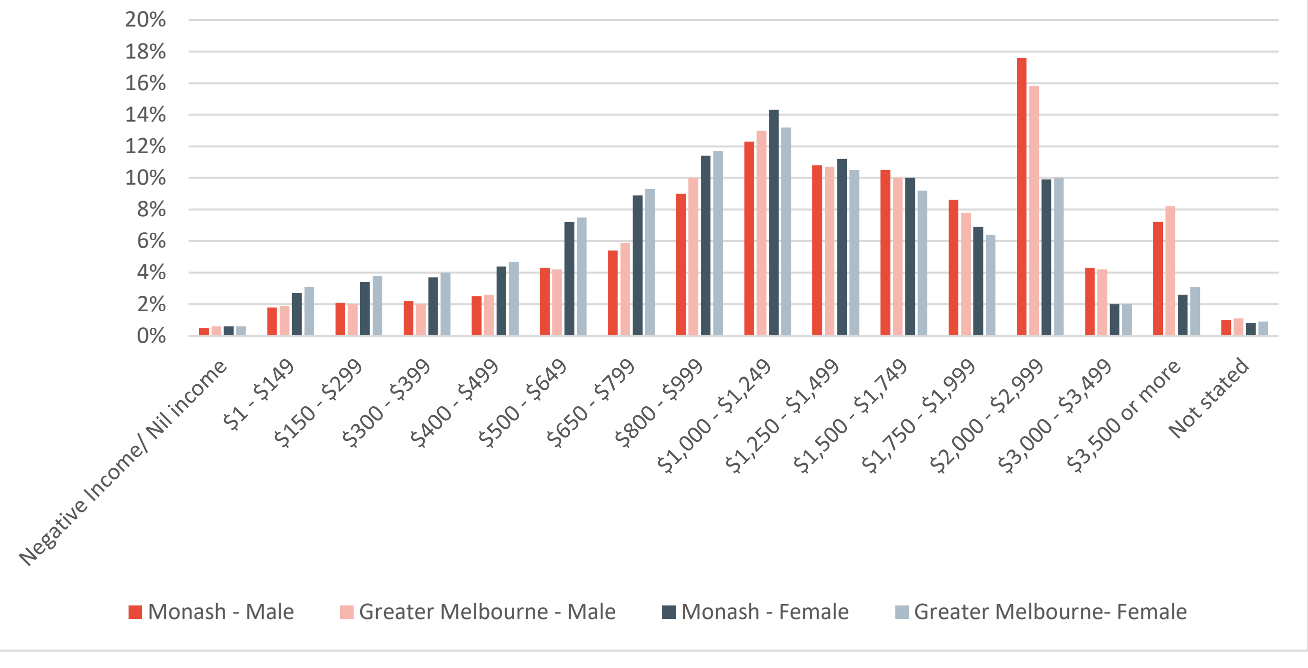
- Monash has higher ratios of households on incomes less than $499 per week than Greater Melbourne.
- Monash has lower ratios of households on incomes between $800 to 2,999 per week than Greater Melbourne.
- Monash has higher ratios of people on incomes above $4,500 per week than Greater Melbourne.

This indicates that Monash has higher ratios for people on the lower and higher ends of the income spectrum compared with Greater Melbourne i.e. that Monash's household income distribution has "fat tails" compared to Greater Melbourne's.

'Resident workers' are defined as employed Monash residents regardless of their place of work.

Resident worker weekly income by sex in Monash and Greater Melbourne is described at Figure 48.

Figure 48 - Resident worker weekly income, by sex – City of Monash and Greater Melbourne, 2021



Source: Profile .id, 2021.

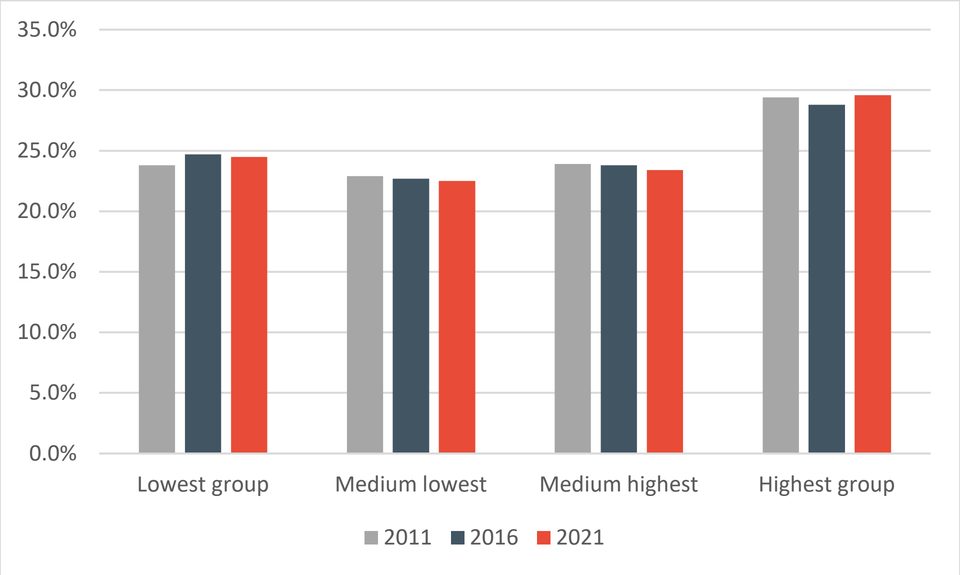
The analysis indicates:

- 14.3% of female resident workers in Monash earn $1,000-$1,249 per week, compared to 13.2% in Greater Melbourne.
- 9.9% of female resident workers in Monash earn $2,000-$2,999 per week, compared to 17.6% for male resident workers.
- 10% of female resident workers in Greater Melbourne earn $2,000-$2,999 per week, compared to 15.8% for male resident workers.

- A greater share of female resident workers are represented in lower pay brackets (below $1,499 per week) in both Monash and Greater Melbourne, while male resident workers are more represented in higher pay brackets. This is potentially because more women work part time than men (see Section4.4.1).

Household income distribution by Victorian quartile for Monash over time is described at Figure 49.

Figure 49 - Household income distribution by Victorian quartile for Monash over time



Source: Hatch analysis based on Profile .id, 2021.

The analysis indicates that:

- The majority of people in Monash are in the lowest (24.5% in 2021) and highest (29.6% in 2021) income quartiles.
- The ratio of people in the highest income quartile grew from 29.4% to 29.6% from 2011 to 2021, having declined to 28.8% in 2016.

Household income distribution by Victorian quartile for Monash and Greater Melbourne is described at Figure 50.

Figure 50 - Income distribution by Victorian Quartiles – City of Monash and Greater Melbourne, 2021

Source: Hatch 2023, based on Profile .id, 2021.

The analysis indicates:

- 24.5% of people in Monash are in lowest income quartile compared to 22.6% in Greater Melbourne and 25% for the whole of Victoria.
- 29.6% of people in Monash are in highest income quartile, compared to 27.8% in Greater Melbourne and 25% for the whole of Victoria.

4.2.2. Socioeconomic indexing

The Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD) measures both advantage and disadvantage in a given area. The index contains indicators of:

- Disadvantage, including unemployment, low incomes or education levels, lack of internet access.
- Advantage, including professional occupations, high income, higher education levels, larger houses.

The higher the IRSAD score, the more advantage there is in that given area.

IRSAD for Monash is described at Table 7. Please note that some surrounding LGAs areas are included for comparison.

Table 7 - IRSAD scores over time for Monash

LGA	2011 IRSAD score	2016 IRSAD score	2021 IRSAD score
Monash	1,054	1,060	1,067
Kingston	955	1,042	1,048
Greater Dandenong	905	915	918
Knox	1,039	1,032	1,029
Whitehorse	1,057	1,063	1,067

Source: Hatch analysis based on ABS SEIFA Index, 2021, ABS Census 2021.

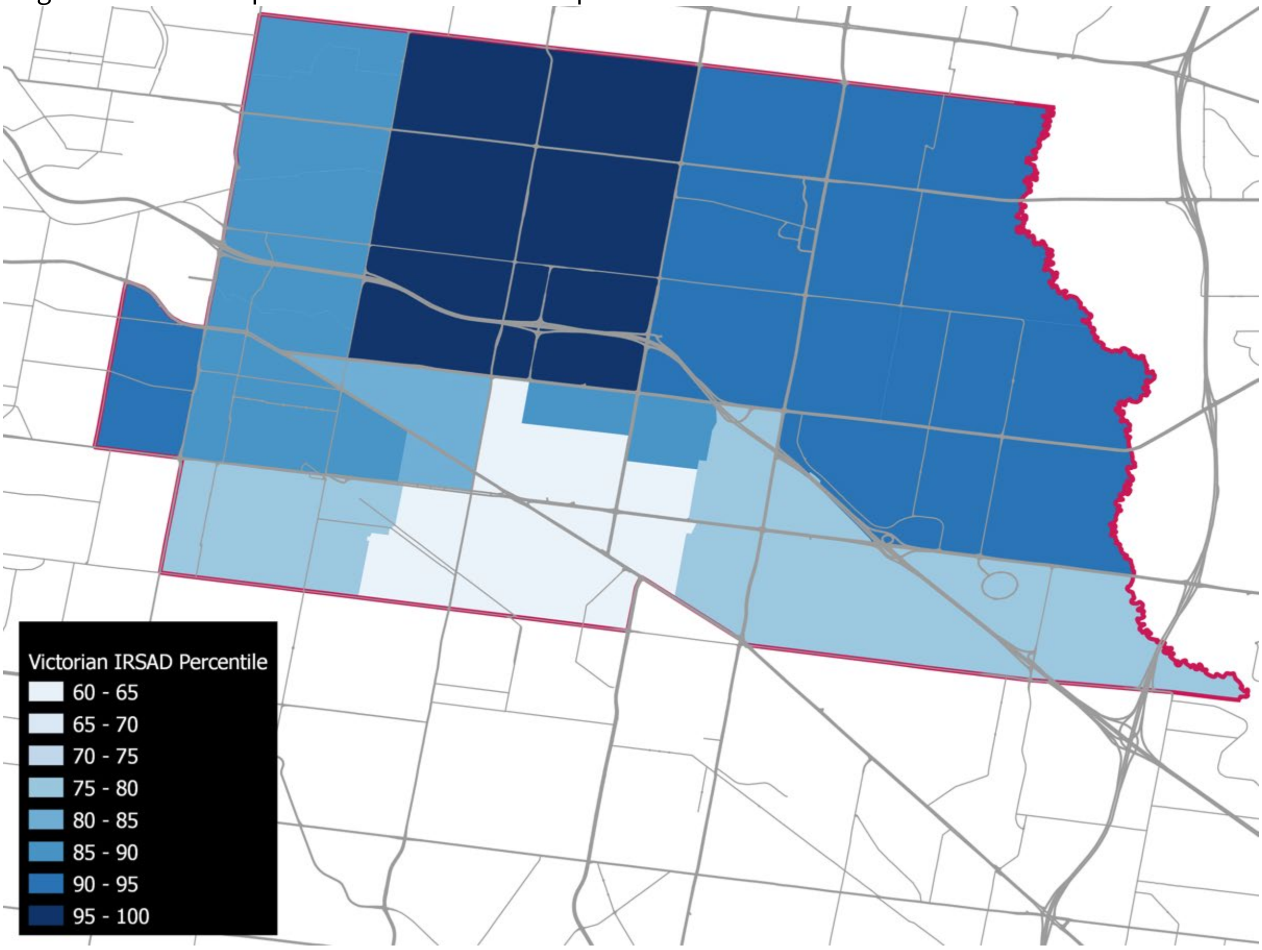
The analysis indicates Monash:

- Increased its IRSAD score by 13 from 2011 to 2021, indicating it has greater advantage than in 2011.
- Has a broadly similar level of advantage compared to most neighbouring LGAs, with the exception of Greater Dandenong which has a considerably lower IRSAD score.

Victorian IRSAD percentiles indicate the ranking of a given area within Victoria. A higher number indicates a higher socio-economic status. For instance, an LGA within the 80th percentile is in the top 20% of Victoria's suburbs on the IRSAD.

A heat map of Monash's IRSAD percentiles is at Figure 51.

Figure 51 - Heat map of Cit of Monash's IRSAD percentiles



Source: Hatch 2023.

The heat map indicates Monash had a variety of IRSAD percentiles:

- 60-65 percentiles
- 80-85 percentiles
- 90-95 percentiles
- 95-100 percentiles.

The clear gap between suburbs with percentiles as low as 60, and others as high as 100, indicates that social advantage and disadvantage is not evenly distributed across Monash.

Is it notable that the lowest percentiles are located close to Monash University, and it is likely the higher levels of disadvantage are at least partially due to the large student population who are unable to work full time.

Economic implications for Monash – socioeconomic disadvantage

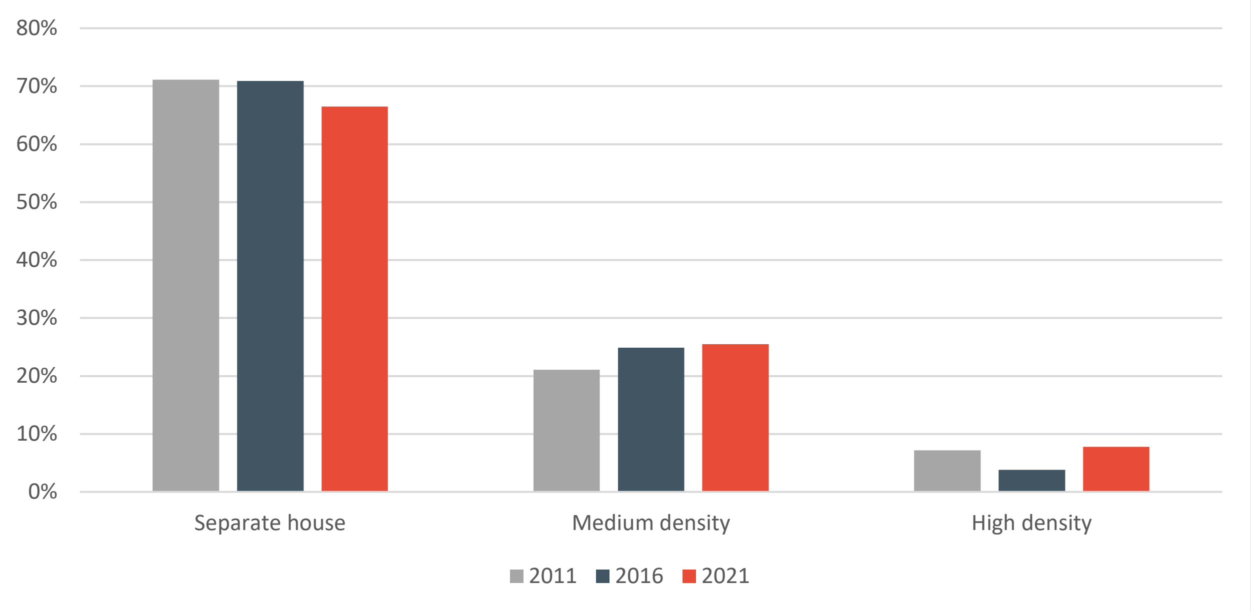
- While Monash has high levels of advantage in aggregate, incomes vary across the City with clear differences between the northern residential sections and other more industrial areas, resulting in a "tale of two cities".

- Programs could be highly targeted at more disadvantaged cohorts/areas of Monash to ensure support goes to those specifically in need.

4.2.3. Housing

Ratios of dwelling structures in Monash is described at Figure 52.

Figure 52 - Dwelling Structure - City of Monash



Source: Profile .id, 2021.

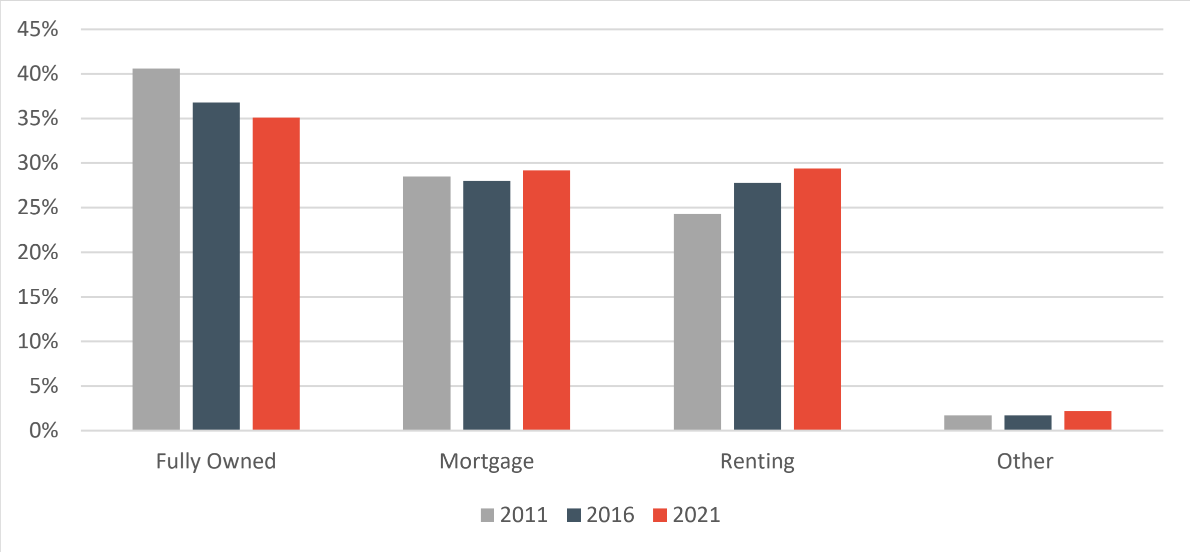
The analysis indicates:

- The rate of separate houses in Monash has declined from 71.1% in 2011 to 66.5% in 2021.
- The rate of medium density residences in Monash has increased from 21.1% in 2011 to 25.5% in 2021.
- The rate of high density residences in Monash has increased from 7.2% in 2011 to 7.8% in 2021, noting that the ratio declined to 3.8% in 2016.

Overall, this indicates that household density is increasing in Monash.

Household tenure in Monash over time is described at Figure 53.

Figure 53 - Household tenure over time - City of Monash



Source: Hatch analysis based on Profile .id, 2021.

The analysis indicates:

- A greater proportion of people have a mortgage, or are renting, in Monash in 2021 than 2011.
- The rate of households with a mortgage has increased from approximately 28.5% in 2011 to 29.2% in 2021.
- The share of households renting has increased from approximately 24.3% in 2011 to approximately 29.4% in 2021.

Household tenure for Monash and Greater Melbourne is described at Figure 54.

Figure 54 - Household tenure - City of Monash and Greater Melbourne, 2021

Source: Profile .id, 2021.

The analysis indicates:

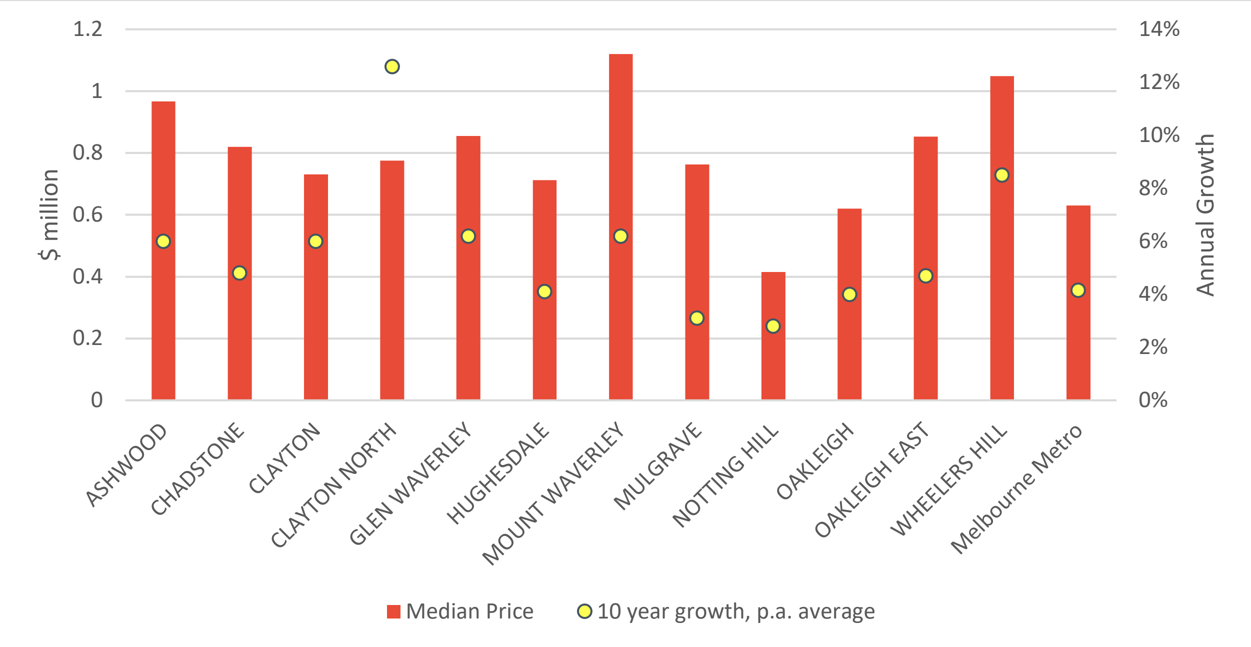
- The rate of households who fully own their property is higher in Monash (35%) than Greater Melbourne (29%).
- The rate of households with a mortgage is lower in Monash (29%) than Greater Melbourne (36%), potentially because more people in Monash have paid off their mortgage.

Median house prices by suburb in Monash are described at Figure 55, and median unit prices by suburb in Monash are described at Figure 56. Median price for the Melbourne metropolitan area is included for comparison in both charts. Please note that the Melbourne metropolitan area is used rather than Greater Melbourne due to differences between real estate data and ABS datasets.

Figure 55 - Median House Price by Suburb in Monash

Source: Victoria Department of Transport and Planning, 2023.

Figure 56 - Median Unit Price by Suburb in Monash



Source: Victoria Department of Transport and Planning, 2023.

The analysis indicates:

- Median unit price in Monash is $775,000, with a median 10-year growth rate of 5.4%.
- House and unit prices have increased over the past ten years for all Monash suburbs.
- The suburbs with the highest median prices are Glen Waverley, Hughesdale, and Mount Waverley.
- Median house prices in all Monash suburbs are higher than the Melbourne metropolitan area median.
- Median unit prices in all Monash suburbs except Notting Hill are higher than the Melbourne metropolitan area median.
- House and unit prices have increased in all Monash's suburbs in last ten years, particularly in Clayton North, Notting Hill.

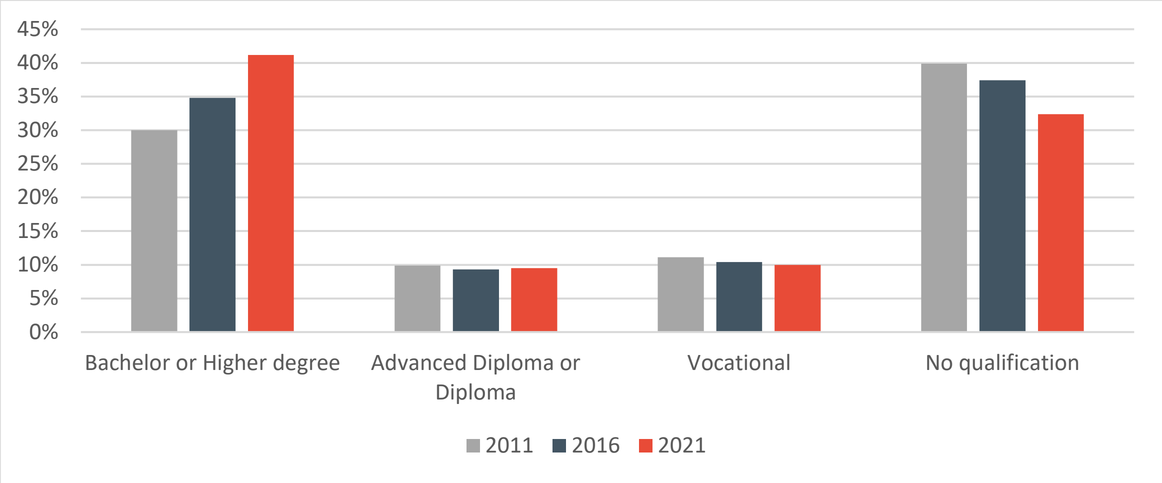
Economic implications for Monash – Housing

- Increases in household density will be accelerated by development of SRL precincts, meaning early community engagement should occur to seek feedback and support for appropriate development.
- Increases in renting tenures, and lower levels of mortgages than Greater Melbourne, suggests build-to-rent models should be pursued in Monash to ensure high levels of occupation in new high density residential developments.
- Strong increases in house and unit prices suggest affordable housing options for critical workers and other lower income cohorts should be considered.

4.3. Education and qualifications

Qualifications of Monash residents over time are described at Figure 57.

Figure 57 - Resident qualifications for City of Monash over time



Source: Hatch 2023, based on Profile .id, 2021.

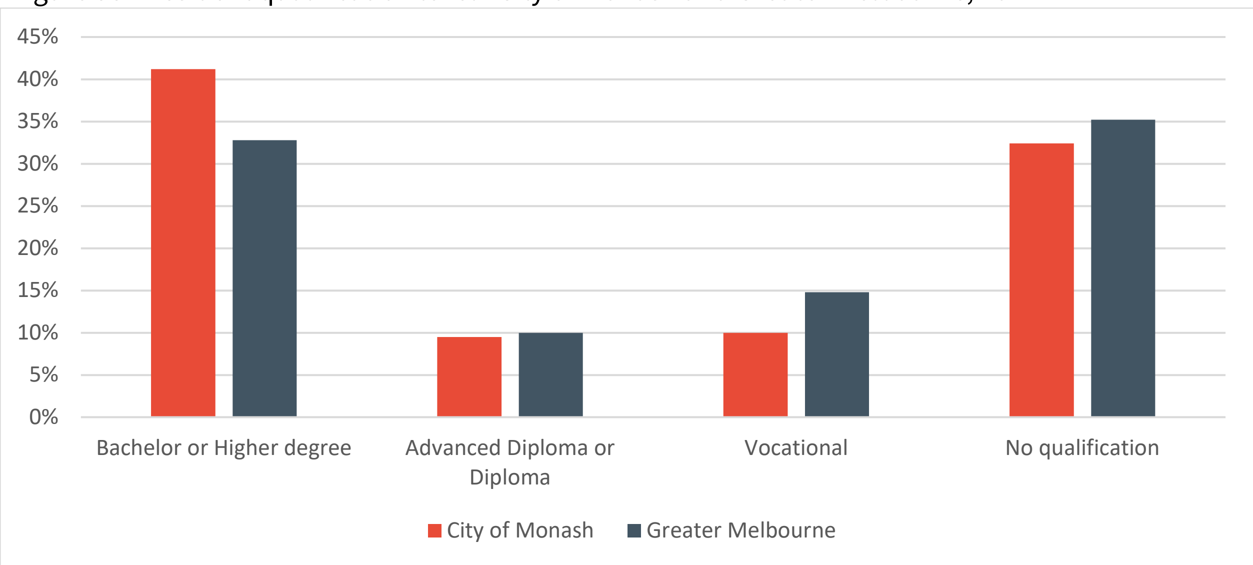
The analysis indicates that between 2011 and 2021:

- The share of Monash residents holding Bachelor degrees or higher has increased from 30% to 41.2%.
- The share of people with no qualifications have decreased from 39.9% to 32.4%.

In summary, Monash's population is becoming more educated.

Resident qualification levels for Monash and Greater Melbourne are described at Figure 58.

Figure 58 - Resident qualification level - City of Monash and Greater Melbourne, 2021



Source: Profile .id, 2021.

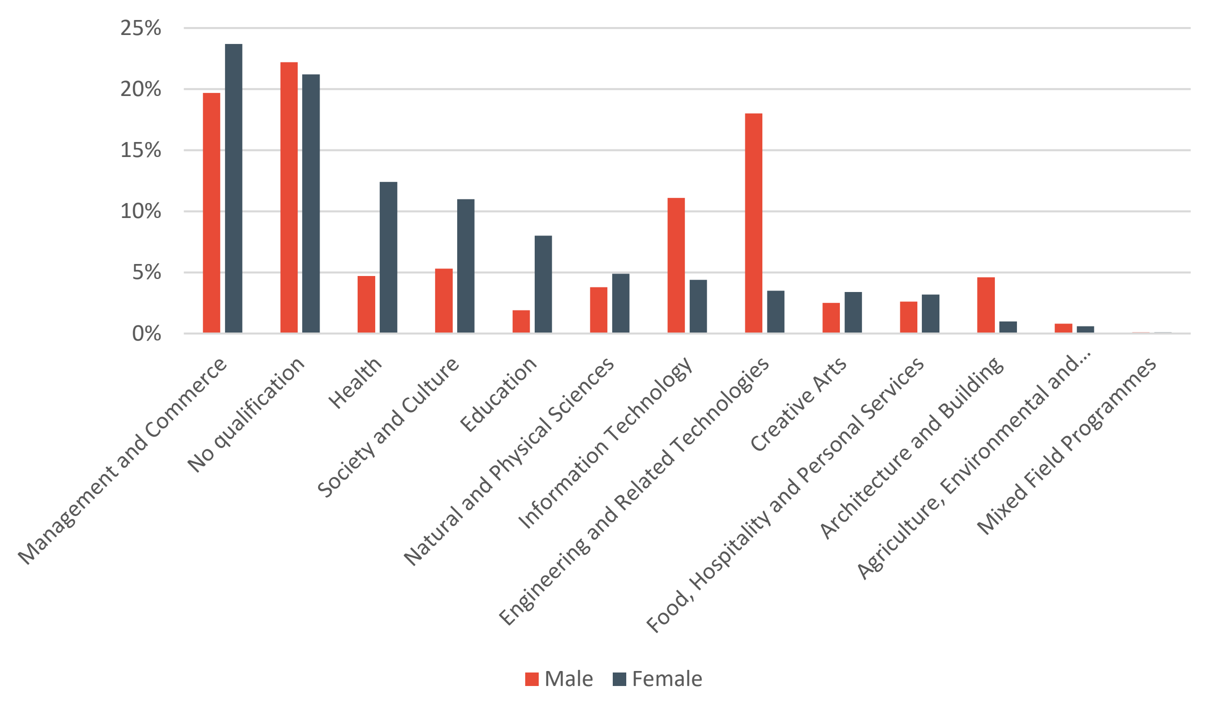
The analysis indicates:

- 41% of Monash residents have a Bachelor degree or higher, compared to 33% in Greater Melbourne.
- 10% of Monash residents have a vocational education, compared to 15% in Greater Melbourne.
- 32% of Monash residents have no qualifications, compared to 35% in Greater Melbourne.

It is also notable that 9.1% of Monash residents were enrolled at a university in 2021 compared to the Greater Melbourne rate of 5.8% (Source: ABS Census 2021). This is likely due to the presence of Monash University within Monash.

Distribution of resident workers by sex, by qualification, in Monash are described at Figure 59.

Figure 59 – Monash resident workers' field of qualification, by sex



Source: Profile .id, 2021.

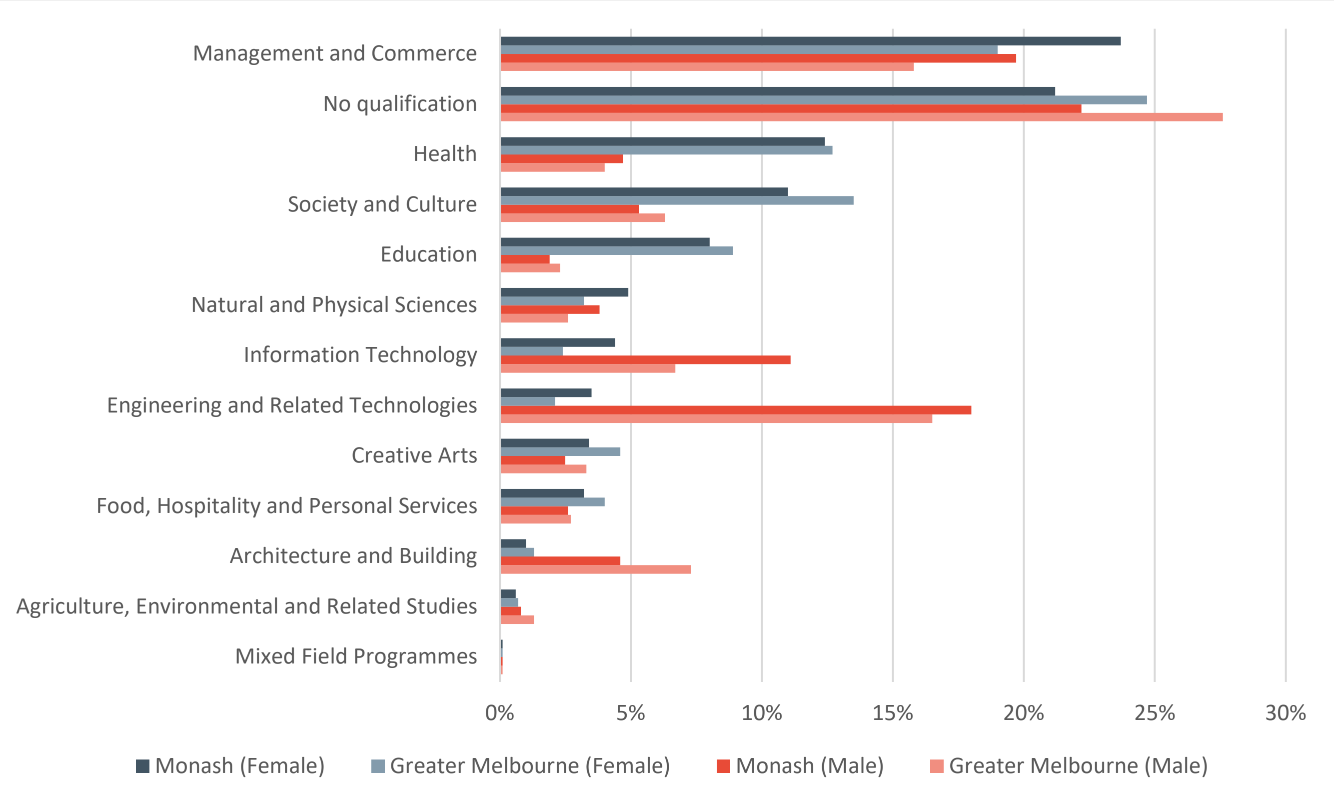
The analysis indicates:

- For female resident workers, Management and Commerce are the most prevalent qualifications at 23.7%, more than double the next highest qualification category of Health at 12.4%.
- For male resident workers, Management and Commerce qualifications are the most prevalent in Monash at 19.7%, followed by Engineering and Related Technologies at 18%.
- Management and Commerce qualifications are more prevalent in females in Monash (23.7%) than in males (19.7%).
- A greater share of the male resident worker population in Monash have no qualifications (22.2%) compared with the female population (21.2%).

- Qualifications in Management and Commerce, Health, Society and Culture, Education, and Creative Arts are more prevalent in female resident workers in Monash than in males.

Distribution of resident workers by qualification, by sex, for the City of Monash and Greater Melbourne is described at Figure 60.

Figure 60 - Distribution of resident workers by qualification, by sex, – City of Monash and Greater Melbourne, 2021



Source: Profile .id, 2021

The analysis indicates:

- Management and Commerce qualifications are more prevalent in the Monash female resident workforce (24%) than the Greater Melbourne female workforce (19%).
- Management and Commerce qualifications are also more prevalent in the Monash male resident workforce (20%) than the Greater Melbourne male workforce (16%).
- Qualifications for Health, Society and Culture, Education, and Natural and Physical Sciences are all substantially more present in female resident workforces than male resident workforces, both in Monash and Greater Melbourne.
- Qualifications for Information Technologies, Engineering and Related Technologies, and Architecture and Building are all substantially more present in male resident workforces than female resident workforces, both in Monash and Greater Melbourne.
- Monash has higher rates of qualifications for Natural and Physical Sciences, Information Technologies, and Engineering and Related Technologies, in the female resident workforce, compared to Greater Melbourne.

Economic implications for Monash – Education

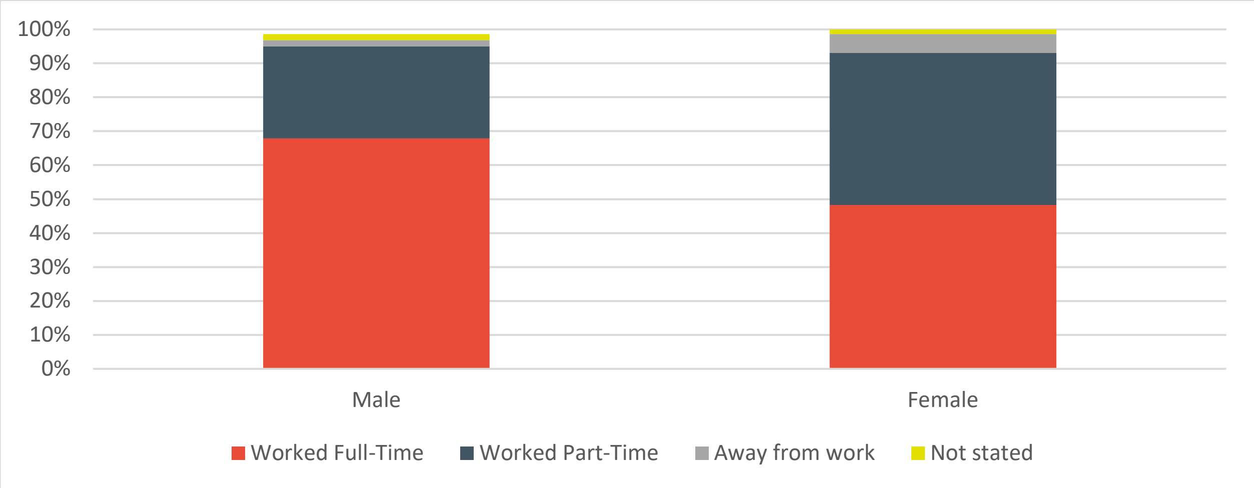
- Monash's highly educated resident worker population suggests the population can support high skilled, highly paid jobs.
- This will support Monash's drive for further talent and investment attraction both nationally and internationally.
- A high proportion of females with Management and Commerce qualifications is a strong advantage that helps Monash stand out to international investors.

4.4. Monash residents labour force characteristics

4.4.1. Labour force status and participation

Labour force status for resident workers by sex in Monash is described at Figure 61.

Figure 61 - Labour force status for resident workers by sex in City of Monash, 2021



Source: Hatch 2023, based on ABS, 2021.

The analysis indicates that for Monash resident workers:

- A substantially greater share of males (68%) work full time than females (48%).
- Conversely, a substantially greater share of females (45%) worked part time than males 27%).

Labour force status for resident workers, by sex, in Monash and Greater Melbourne is described at Figure 62.

Figure 62 - Labour force status for resident workers, by sex - City of Monash and Greater Melbourne, 2021

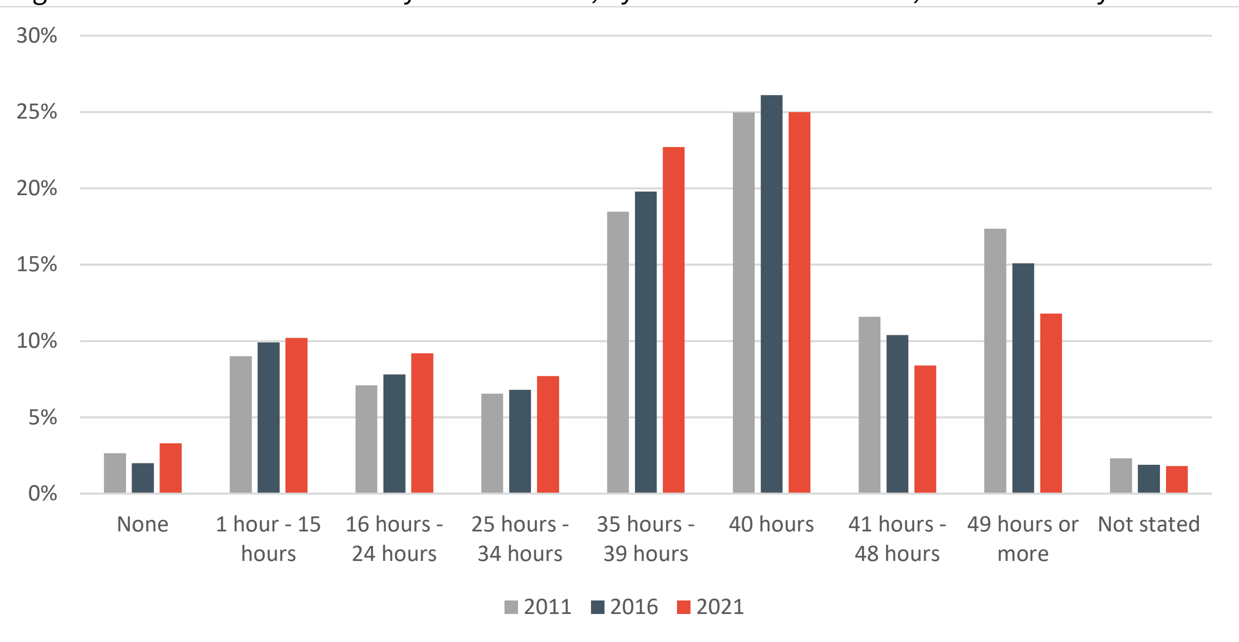
Source: Hatch 2023, based on Economy .id, 2021.

The analysis indicates:

- Ratios of male resident workers' labour force status for full time work is higher in Greater Melbourne (71.3%) compared to Monash (67.9%).
- Ratios of female resident workers' labour force status for full time work is approximately equivalent for Monash compared to Greater Melbourne (48.3% and 48% respectively).
- A substantially greater proportion of female residents work part time in Monash (44.7%) and Greater Melbourne (44.3%) than male residents (27.1% and 23.2% respectively).

Distribution of weekly hours of work, by male resident workers, in Monash is described at Figure 63.

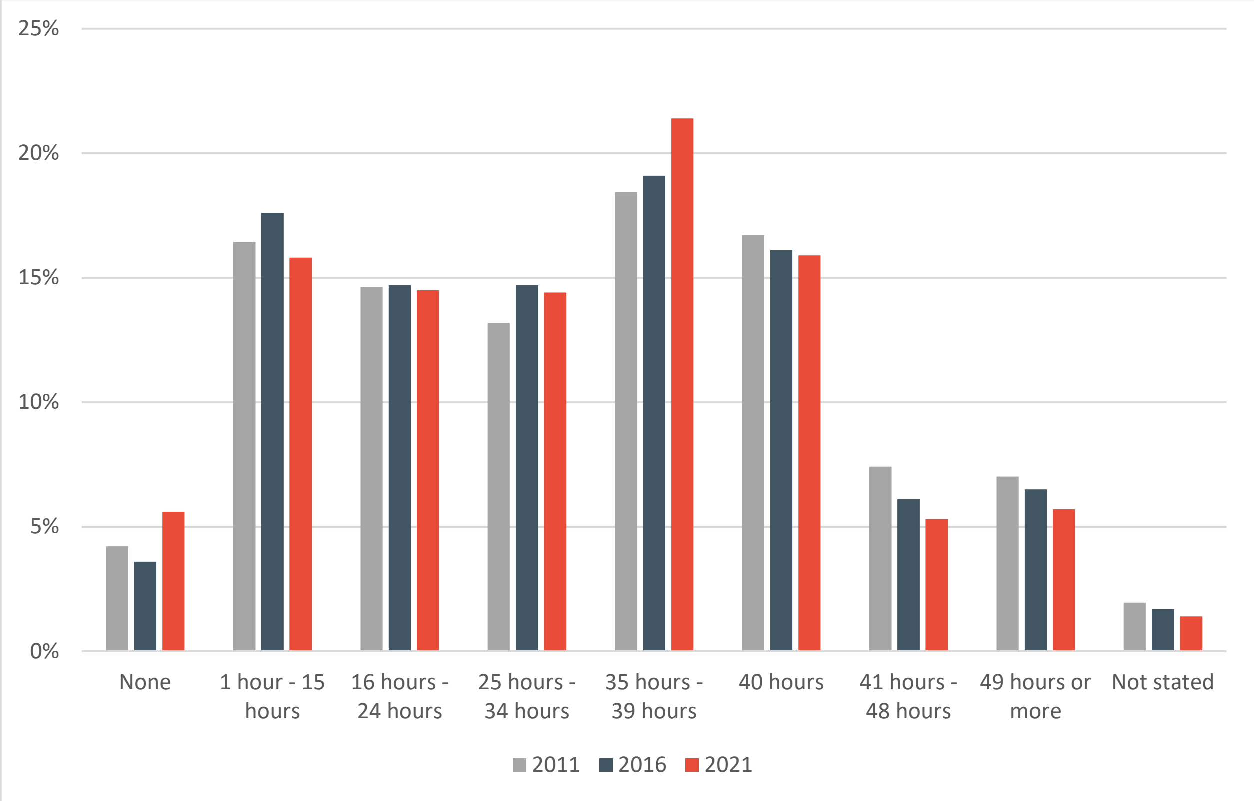
Figure 63 – Distribution of weekly hours of work, by male resident workers, over time - City of Monash



Source: Hatch 2023, based on Economy .id, 2021.

Distribution of weekly hours of work, by female resident workers, in Monash is described at Figure 64.

Figure 64 - Distribution of weekly hours of work, by female residents, over time - City of Monash



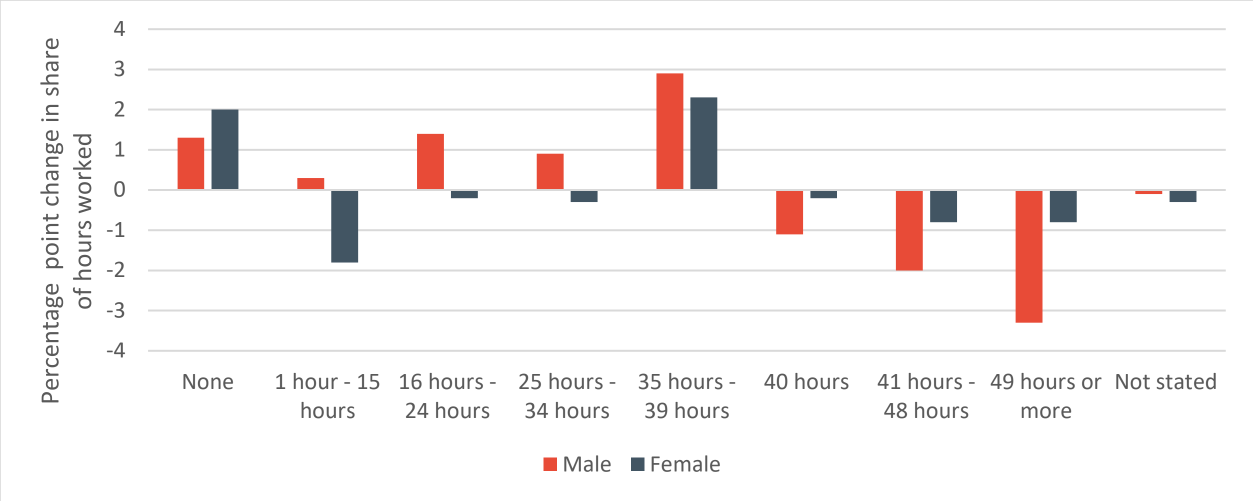
Source: Hatch 2023, based on Economy .id, 2021.

The analysis indicates:

- The majority of male resident workers' work more than 35 hours per week.
- The majority of female resident workers' work less than 40 hours per week, but this rate has increased over time.
- A greater share of both male and female resident workers in 2021 were working 35-39 hours a week compared to 2011, while the share working over 40 hours a week has declined.

Change in residents' weekly hours of work distribution, by sex, 2016 - 2021 for Monash residents is described at Figure 65.

Figure 65 - Change in resident workers' weekly hours of work distribution, by sex, 2016 - 2021 City of Monash



Source: Hatch 2023, based on Economy .id, 2021.

The analysis indicates that since 2016:

- The share of male and female resident workers' working more than 40 hours or more per week has fallen for both sexes, particularly males.
- The share of male resident workers working between 15 and 39 hours per week has risen.
- The share of female resident workers working between 35 and 39 hours per week, or not working, has risen, while the share of all other categories has fallen.

Resident labour force participation rate by sex for Monash and Greater Melbourne residents is described at Figure 66.

Figure 66 – Resident labour force participation rate by sex – City of Monash and Greater Melbourne

Source: Profile .id, 2021.

The analysis indicates:

- A low proportion of male and female residents participate in the Monash resident workforce when compared to male and female residents of Greater Melbourne.
- The Monash resident participation rate (60.8%) is lower than Greater Melbourne's (64.1%). This is likely because of Monash' higher rate of people aged 70 and older compared to Greater Melbourne (see Figure 36).

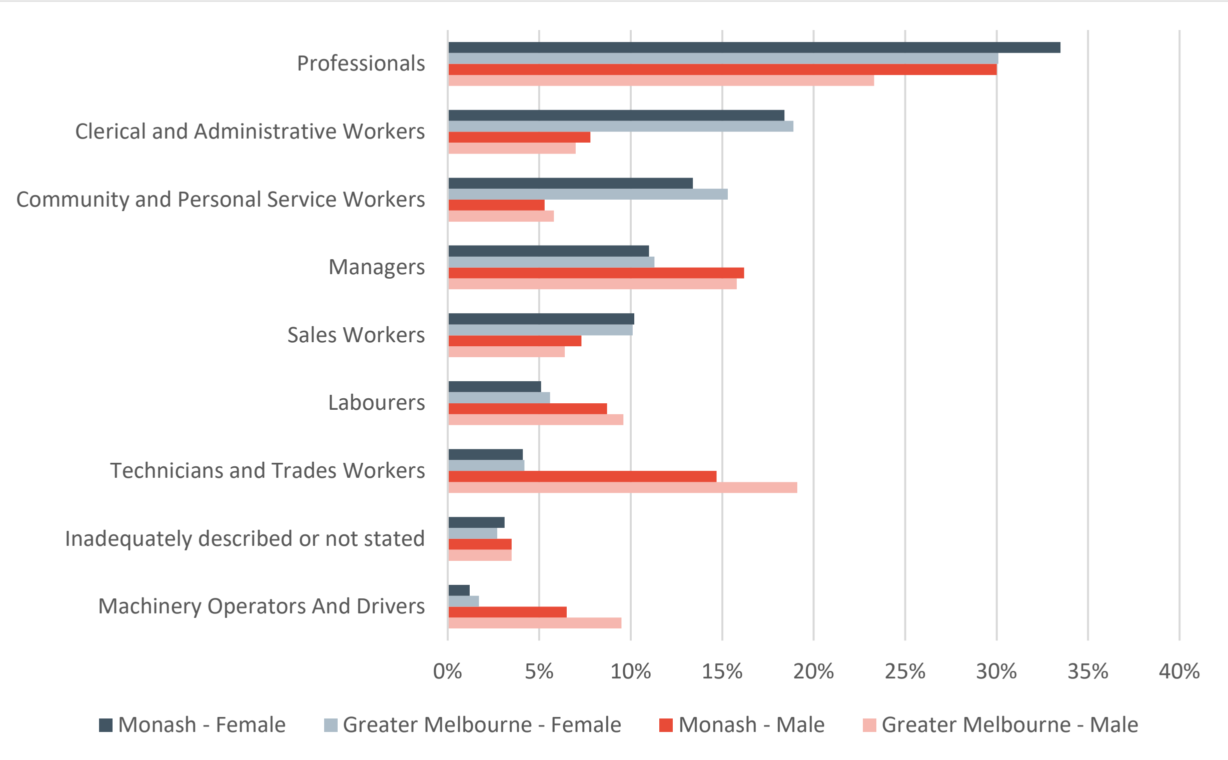
Economic implications for Monash – Labour force status and participation

- Possibility of helping more females enter the workforce by providing more childcare opportunities and local jobs that reduce commute times.

4.4.2. Labour force by occupation

Resident worker occupation in Monash and Greater Melbourne is described at Figure 67.

Figure 67 - Resident worker occupation City of Monash and Greater Melbourne



Source: Economy .id, 2021.

The analysis indicates:

- A greater share of female resident workers work as Professionals (34%) than women in Greater Melbourne (30%), and male resident workers from Monash (30%) and Greater Melbourne (23%).

- Female resident workers from Monash are more prevalent as Clerical and Administrative Workers, Community and Personal Service Workers, and Sales workers than male resident workers, both for Monash and Greater Melbourne.
- Male resident workers from Monash are more prevalent as Managers, Labourers, Technicians and Trade Workers, and Machinery Operators and Drivers, then female resident workers, both for Monash and Greater Melbourne.

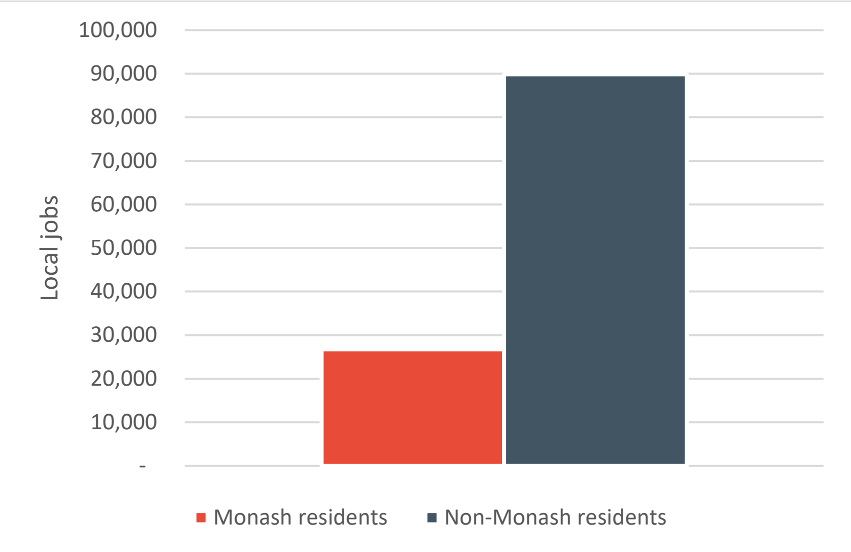
Economic implications for Monash – Resident labour force by occupation

- High rates of Professionals residing locally will be helpful for Monash to attract investment.
- Research demonstrates firms with more women in senior positions are "more profitable, more socially responsible, and provide safer, higher-quality customer experiences".[13] It is therefore possible that the high levels of female Professionals residing locally will help assist Monash attracting investment from global firms.
- Monash could potentially undertake work to highlight this local advantage as part of building the MNEIC's brand, for example, including this information on published and online materials targeted at investors.

4.4.3. Labour force mobility

Employment self-sufficiency measures the proportion of workers in Monash who also reside within the LGA. It describes how well suited the local population is to fulfil the job demands of the local economy and provides an indication of the balance between resident and non-resident workers that the local economy relies upon. Employment self-sufficiency is described at Figure 68.

Figure 68 - Employment Self Sufficiency - City of Monash, 2021



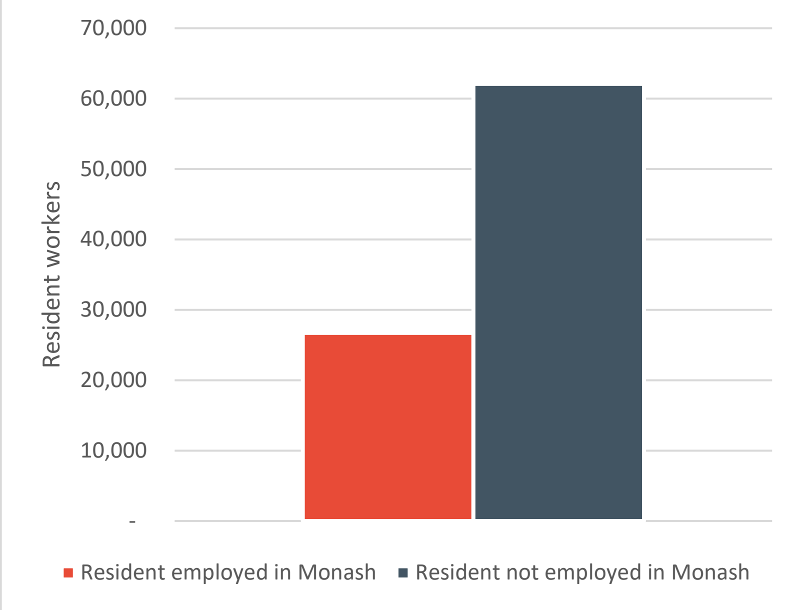
Source: Economy .id, 2021.

[13] Post, Lokshin, Boone, "Research: Adding Women to the C-Suite Changes How Companies Think", Harvard Business Review, April 2021.

The analysis indicates that 77% of Monash jobs are filled by workers who do not reside in Monash.

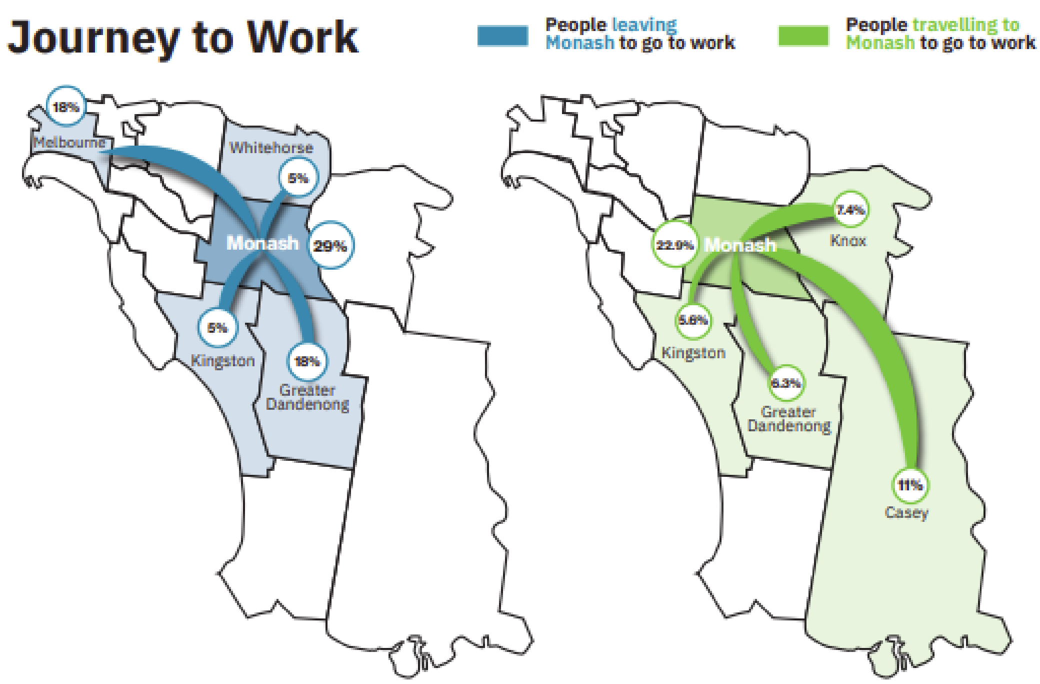
Employment self-containment measures the proportion of Monash resident workers whose place of work is within the LGA. It provides an indication of whether residents are able to find jobs within the local area, or if they must venture out into other regions. Employment self-containment is described at Figure 69.

Figure 69 - Employment Self Containment - City of Monash, 2021



Source: Economy .id, 2021.

The analysis indicates that 29% of Monash resident workers have obtained employment within Monash.



The top five employment destinations for Monash resident workers are shown at Table 8.

Table 8 - Top employment destination for Monash resident workers

Top five LGA destinations for Monash resident workers	Percentage of total Monash resident workers
Monash	29.0%
Melbourne CBD	18.0%
Greater Dandenong	6.9%
Whitehorse	5.0%
Kingston	5.0%

Source: Economy .id, 2021.

The analysis indicates that Monash is the top destination for Monash's resident workers (29%), followed by Melbourne CBD (18%).

The top five points of origin for people working in Monash, who are not Monash resident, travelling is at Table 9.

Table 9 - Top five origins for people travelling to Monash to work

Top five LGAs origins for people working in Monash	Percentage of total Monash workforce (i.e. local jobs)
Monash	22.9%
Casey	11%
Knox	7.4%
Greater Dandenong	6.3%
Kingston	5.6%

Source: Economy .id, 2021.

The analysis indicates Monash is the top origin for Monash's workforce (22.9%), followed by Casey (11%).

Economic implications for Monash – Labour force mobility

The SRL precinct development provides Monash the opportunity to strongly increase its employment self-containment, meaning more people can both live and work locally.

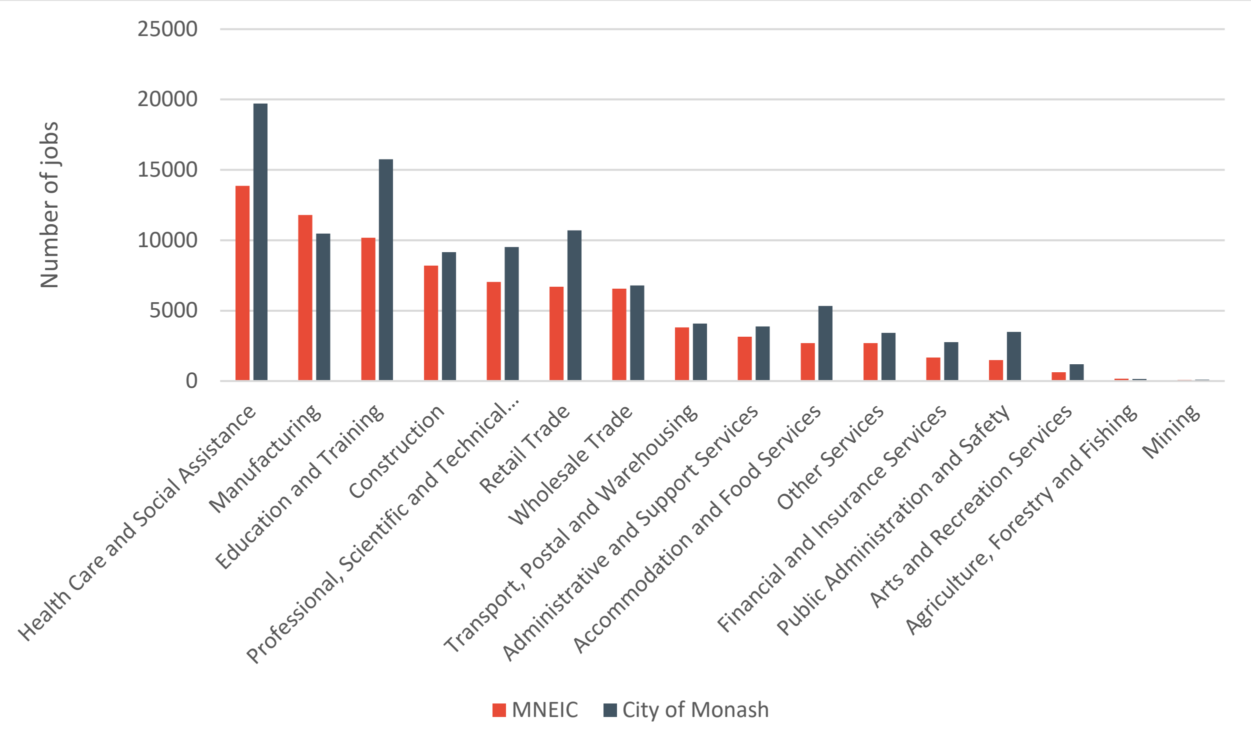
5. Monash National Employment and Innovation Cluster - economic overview

As detailed in Section 2.2, MNEIC is a precinct of international significance and is home to a number of key facilities and institutes, including hospitals, Monash university, and major corporations. This section therefore provides an overview of key data and analysis for the precinct and its importance to Monash.

Please note that, due to data availability, this section explores a geographical area that is larger than the MNEIC as shown in Figure 3. A full list of ABS Destination Zones used for collating this data can be found at the Technical Appendix. For simplicity, this area will be referred to as the Monash Precinct.

Total employment, by industry for the Monash Precinct and City of Monash is described at Figure 70.

Figure 70 - Total employment, by industry – Monash Precinct and City of Monash, 2021



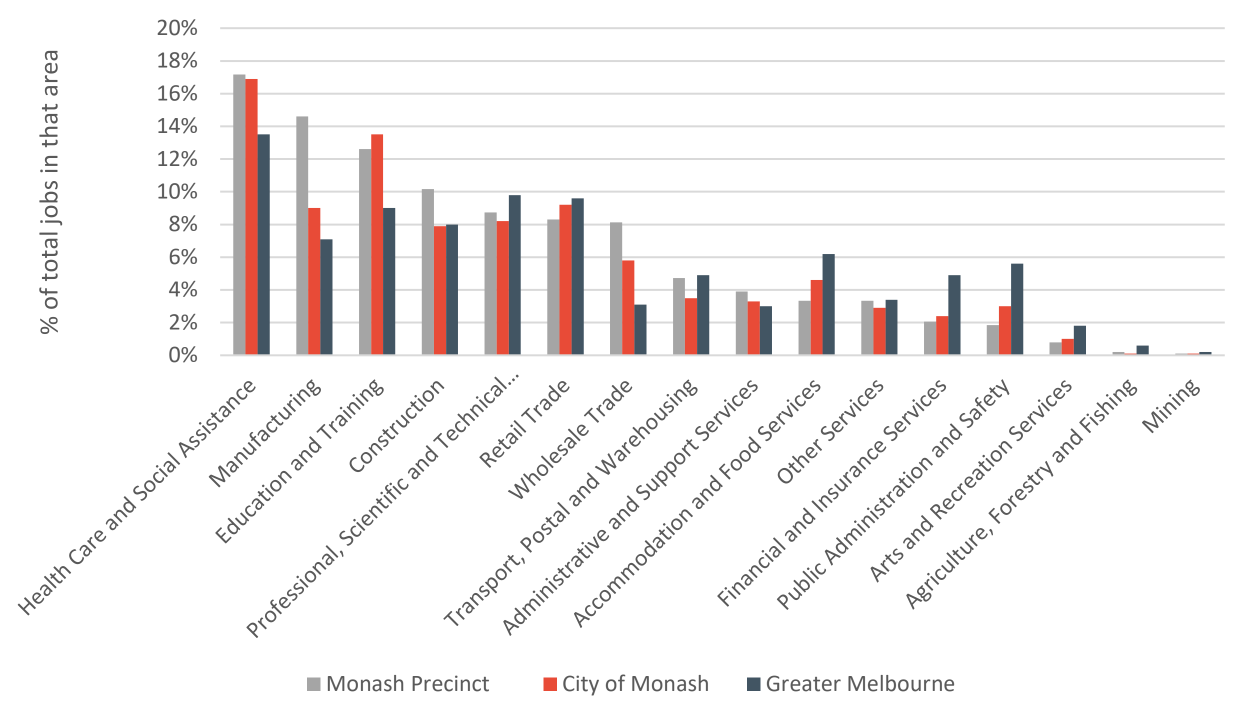
Source: Hatch 2023, based on Economy ID, 2021.

The analysis indicates that in 2021 the Monash Precinct hosted:

- 83,483 jobs.
- Produced GRP of $11.8 billion.
- Produced GRP per worker of $141,870.
- Jobs in the Monash Precinct comprising of a substantial amount of Monash jobs for many industries, particularly Manufacturing, Construction, Wholesale Trade, Transport, and Postal and Warehousing.

Distribution of employment industry for Monash Precinct, Monash, Greater Melbourne is described at Figure 71.

Figure 71 - Distribution of employment industry – Monash Precinct, City of Monash, Greater Melbourne, 2021



Source: Hatch 2023, based on Economy ID, 2021.

The analysis indicates:

- Monash Precinct's rate of employment is higher than both Monash and Greater Melbourne for the following industries: Health Care and Social Assistance, Manufacturing, Construction, and Wholesale Trade.

5.1.1. Specialisations within the Monash Precinct

Location quotients (LQ) are used to determine the main industries in a given area by comparing them to a benchmark area. The higher the LQ figure, the more concentrated that industry is compared to the benchmark area. Employment has been selected here for LQ analysis because it demonstrates the specialisation of jobs in specific industry sectors.

Specialisations are identified when the share of employment in the Monash Precinct is more than 1.2 times greater than corresponding ratio for Greater Melbourne share (i.e. a Location Quotient greater than 1.2).

Monash Precinct industries by specialisation are at Table 10.

Table 10 - Monash Precinct industries by specialisation

Industry	Location Quotient – Employment 2021
Wholesale trade	1.96
Manufacturing	1.68
Education and training	1.40
Health care and social assistance	1.29

Source: Hatch 2023, based on Economy ID 2021.

The analysis indicates that the Monash Precinct has strong employment specialisations in Wholesale Trade, Manufacturing, Education and Training, and Health Care and Social Assistance.

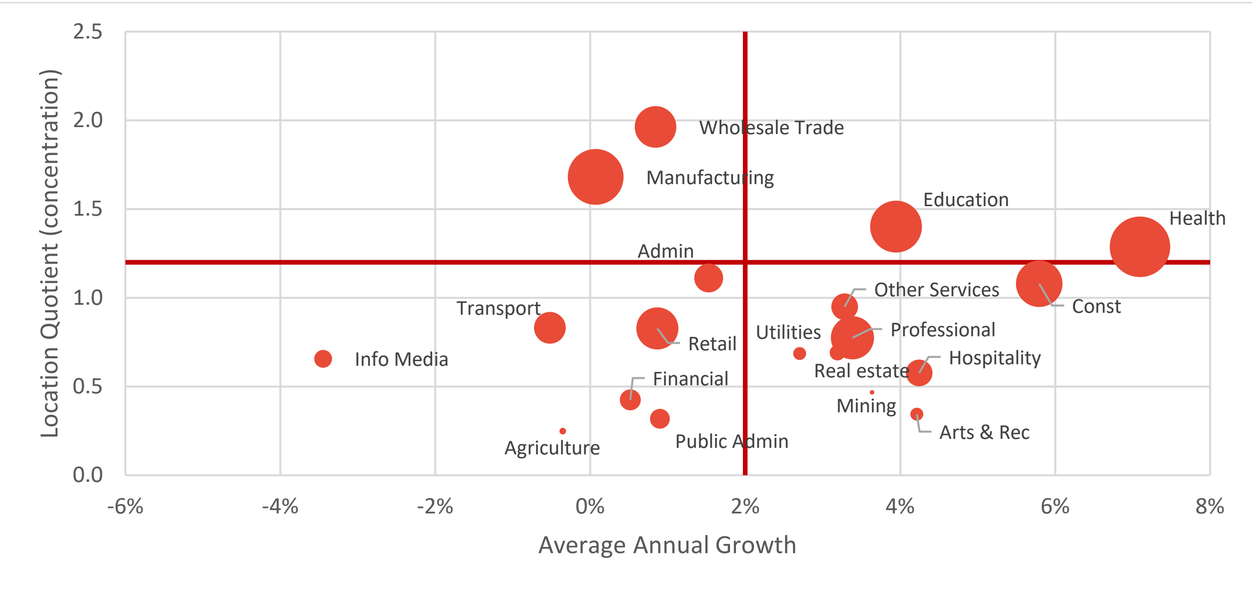
5.1.2. Monash Precinct growth industries

Figure 72 shows LQ employment based on growth in, and specialisation by, employment, benchmarked against Greater Melbourne. As noted in section 5.1.1, employment has been selected for analysis:

- For LQ, because it demonstrates the relative concentration of jobs in specific industry sectors.
- For growth, as industries with growing numbers of employees are highly likely to be expanding.

Industries with a LQ of 1.2 or above are considered to have a strong concentration of activity (as indicated by employment) compared to Greater Melbourne as a whole. Industries with an above 2% average annual growth rate are considered to be growing particularly strongly.

Figure 72 - Monash Precinct industries by employment growth (2016-2021) and employment concentration



Source: Hatch analysis based on ABS Census 2021, 2016.

The analysis indicates:

- The Monash Precinct's strongest industries by growth and concentration are Health, Education, and Construction.
- Wholesale Trade and Manufacturing are clear concentrations but are not growing rapidly.

Economic implications for Monash – Monash Precinct

- Monash Precinct's Health and Education sectors are clear drivers of growth and concentration.
- Going forward, there is potential to grow the Monash Precinct's concentration in Manufacturing by linking it more strongly to its Health and Education sectors.

6. Overview of economic development opportunities for Monash

This section contains high level consideration of potential economic development opportunities for Monash.

6.1. Capitalise on Suburban Rail Loop's opportunities

As noted in Section 6.2, SRL East will be transformational for Monash, creating thousands of new jobs and residents. Monash is actively engaging with SRL to optimise this transition, including working to:

- Support businesses through construction stages of the SRL to ensure negative impacts are mitigated during.
- Actively design new precincts with the SRL Authority to Monash's style and needs.
- Create programs helping disadvantaged Monash residents access new jobs created by the SRL.

6.2. Develop a compelling brand for the MNEIC

MNEIC is internationally significant but currently lacks the recognition it deserves given its economic importance to Australia. The large number of precincts both within and adjacent to MNEIC also make it confusing for visitors and investors to define the MNEIC's profile.

Developing a compelling brand for MNEIC will help attract global investment and talent. Highlighting the significant facilities and institutes available for research and development will also help create international recognition for highly sought businesses and institutions. The brand should aim for global recognition highlighting MNEIC's world-leading specialities, as well as the potential to combine these specialities in new and unique ways.

6.3. Ensure land-use is well curated

Employment land is in short supply in Monash.[14] Given the significant potential of MNEIC and SRL to create large numbers of new high skilled, high wage jobs, this land should be preserved for employment purposes to the highest degree possible and precluded from other development. Given the new SRL precincts being planned, Monash should have ample room for further residential expansion if population densities are increased.

6.4. Build on existing innovation and entrepreneurship

While considerable supports for start-ups and spin outs are currently available through Monash University and other sources, some gaps in the ecosystem do exist. In particular, there is currently

[14] Consultation with the City of Monash, April 2023.

limited office space and co-working spaces not focussed on a particular discipline/specialisation in the Monash Precinct. The southern section of Monash includes brownfield potential sites which could be redeveloped to address this gap, with the goal of highly productive and tech-oriented businesses to replace lower tech, less productive industries. This outcome directly relates to Section 6.3.

Other gaps in the innovation and entrepreneurship ecosystem may also exist, and there are opportunities for Monash to partner with Monash University as part of its investigation into current ecosystem gaps (see Section 2.2).

6.5. Synergies between MNEIC and Suburban Rail Loop

MNEIC and the planning, design, and construction of the SRL can potentially create new specialisations for Monash, and boost productivity and exports. Increasing opportunities are emerging as a result of major rail projects both nationally and internationally. Given the presence of the Institute of Railway Technology, the Victorian Tunnelling centre and existing advanced manufacturing industries with expertise to suit an emerging rail technologies cluster, the precinct may be in a position to take advantage of this emerging specialist sector.

7. Technical Appendix

This section contains a full list of ABS Destination Zones used for collating this data on the Monash Precinct in Section 5. Note that data for the Destination Zones is based on Census 2021 data.

Table 11 - List of ABS Destination Zones used to collate data on Monash Precinct

213172911	215680005
213172912	215680006
213172913	215680007
213172914	215680008
213172915	215680009
213172916	215670001
213172917	215670002
213172918	215670003
213172920	215670004
213172921	215670005
213172923	215670006
213100001	215670007
213100002	215670008
213100004	215670009
213100005	213252191
213100006	213252190
213102769	213252216
213102770	213252219
215680001	213220004
215680002	213242242
215680003	213242244
215680004	213242233
215680005	213242235
215680006	213262164
215680007	213262165
215680008	213262177
215680009	213262160
215670001	213262162
215670002	213260003
215670003	213260004
215670004	213262182

Source: Hatch 2023.